SOUTHERN CALIFORNIA ASSOCIATIONOF MARINE INVERTEBRATE TAXONOMISTS

May–Aug, 2019 SCAMIT Newsletter Vol. 38 No. 1&2

Heterophoxus cf ellisi
San Diego Bay Dredge Station B5C, 2006
Photo by D. Pasko

This Issue

13 MAY 2019, *HETEROPHOXUS* AND "FRIENDS" (D. PASKO), AND ARTHROPOD TOOLBOX REVIEW (B. FERRARO), OCSD 2
10 JUNE 2019, APLACOPHORA, OCSD 6
AUGUST 2019, 13TH INTERNATIONAL POLYCHAETE CONFERENCE 7
2018–2019 SCAMIT TREASURY SUMMARY 9
LITERATURE CITED 9
SCAMIT OFFICERS 10

The SCAMIT newsletter is not deemed to be a valid publication for formal taxonomic purposes

Publication Date: February 2020

13 MAY 2019, *HETEROPHOXUS* AND "FRIENDS" (D. Pasko), AND ARTHROPOD TOOLBOX REVIEW (B. FERRARO), OCSD

Attendance: Craig Campbell, Joanne Linnenbrink, CLAEMD; Katie Beauchamp, CSD; Dean Pasko, Tony Phillips, DCE; Don Cadien, Chase McDonald, Jovairia Loan, LACSD; Angelica Zavala Lopez, MTS; Kathy Omura, NHMLAC; Kelvin Barwick, Ben Ferraro, Danny Tang, OCSD

UPCOMING MEETINGS

Visit the SCAMIT website at: www.scamit.org for the latest upcoming meetings announcements.

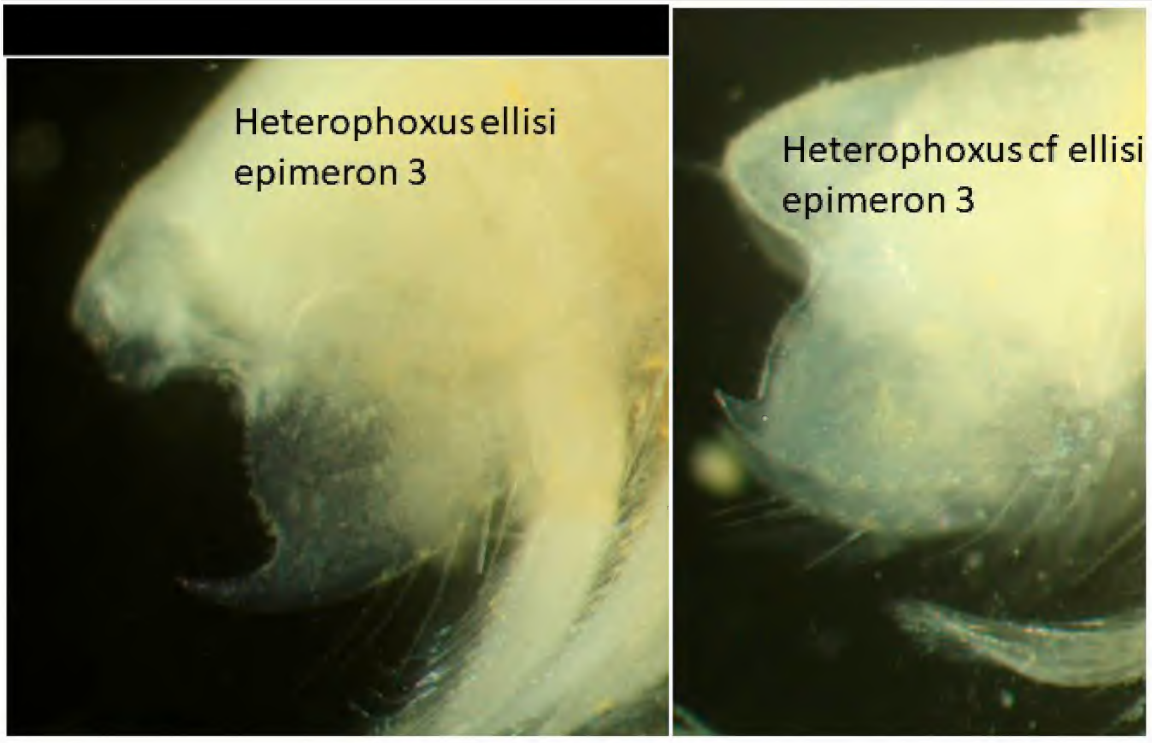
Kelvin began the meeting with the announcement of the SCAMIT officer election results; there were no changes or surprises and the current suite of officers was reelected. He then covered upcoming meetings; June 10th will be Aplacophora at OCSD; no meeting in July; the August 12th meeting will focus on Annelids, but unsure of what form that meeting will take as the IPC13 conference is being held the same month in Long Beach; September 9th will be on Miscellaneous Phyla FIDs at OCSD; October 14th will cover Mollusks at LACSD; November 11th will cover Echinoderms at OCSD; the annual All Hands meeting will be December 9th at SCCWRP.

Kelvin also mentioned that two meetings per month may become necessary due to ongoing Bight'18 taxonomy. However, he asked people to "speak up" if interested (through the SCAMIT List Server at least). It was understood that not everyone was processing their Bight'18 infauna samples on the same schedule, so people may not yet know whether multiple meetings per month would be useful.

With no other business items to discuss, Kelvin and Danny excused themselves, and Dean Pasko opened the discussion on Phoxocephalids/*Heterophoxus*.

Dean's primary focus for the meeting was *Heterophoxus ellisi*, *H. cf ellisi*, and *H. oculatus*. They are similar species, and easily confused, so the goal was to shed more light on their differences/similarities to assist in identification efforts. *H. affinis*, the other reported SCB *Heterophoxus,* is distinguished from the above by the absence of setae along the posterior margin of pereopod (P)7, Article (Art) 6 and reduction (or absence) of eyes. Addtionally, *H. affinis* is typically found in deeper waters than the species being discussed here.

- *H. ellisi*, *H. cf ellisi*, and *H. oculatus* are the most commonly encountered *Heterophoxus* in the Southern California Bight (SCB).
- *H. cf ellisi* is a shallow-water, embayment species, while *H. oculatus* and *H. ellisi* are both typically offshore species.
- The epimeron (Ep) 3 for both *H. oculatus* and *H. ellisi*, has a large processes/tooth on the postero-distal end. On a relative scale, the Ep 3 tooth of each of these species is <u>≥1/3 the length of the straight portion of the Ep 3 posterior margin.</u>
- Whereas *H. cf ellisi* has a small Ep 3 tooth. The tooth is <u>≤¼ the length of the straight portion of the posterior margin</u>.
- *H. ellisi*, P6, Art 6, have singly inserted setae along the entire posterior margin.



- *H. ellisi*, P6, Art 5, will also have multiple sets of spine-seta pairings (i.e., a spine paired with a plumose seta) along the posterior margin.
- *H. oculatus*, P6, Art 6, has a combination of singly and doubly inserted setae along the posterior margin, most often with two or three pairs of doubly inserted setal pairs.
- *H. oculatus*, P6, Art 5, posterior margin has 1-3 unpaired spines (same as seen on *H. cf ellisi*).
- *H. cf ellisi*, P6, Art 6, will consist primarily of singly inserted setae in the posterior margin, with the occasional set of paired setae present distally. Dean also pointed out that when looking at that distal end of article 6 (where article 6 attaches to article 7, the dactyl), there will always be a setal bundle consisting of 3+ setae at the end of the segment.
- *H. cf ellisi*, P6, Art 5, posterior margin has 1-3 unpaired spines (same as seen on *H. oculatus*).

Dean discussed the potential for confusing *H. cf ellisi* and *H. oculatus* since *H. cf ellisi* can occasionally have a pair of doubly-inserted setae on P6 Art 6, the character used to distinguish *H. oculatus* from other *Heterophoxus* taxa. However, the two species can be distinguished by the size of the Ep 3 tooth: large in *H. oculatus* and small in *H. cf ellisi*.

Dean also pointed out that SCAMIT's standard recommendation for specimens of *Heterophoxus* where one or both P6 is missing has been to report them at the genus level because of the variability of the setal bundle arrangement on P6. But, he noted that the shallow water *H. cf ellisi* is different enough due to the small size of the tooth on Ep 3, from *H. ellisi* and *H. oculatus*, that a specific assignment can be made. Dean offered to create an ID sheet to help differentiate these species.

Don suggested looking at Dean's presentation from last year's meeting on Phoxocephalids as a good reference (with photos!) for some of the characteristics described herein. The slides presented today update the previous presentation with the comparison of *H. oculatus*.

Publication Date: February 2020

Dean asked if others sampled *H. cf ellisi*, and only Tony claimed to have seen it. The POTW monitoring programs do not normally sample in bays (except perhaps for special regional monitoring), so this "bay" species is not normally seen.

Don asked if Dean noticed any sexual dimorphism with these species, and Dean said he hadn't, at least not with respect to the characters being considered.

Dean wanted to point out that at the beginning of his Phoxocephalid key, species are separated by the presence or absence of eyes, however he's come across some *H. affinis* in San Diego, without eyes (no ommatidia present either); he'll work on updating his key to reflect this. Don said that the presence or absence of eyes in this group, as we know from *H. oculatus*, are population-dependent, so they have the potential to develop if needed, but it depends on habitat.

Dean completed his presentation and then Chase mentioned he'd brought a Bight'18 FID Phoxocephalid (taken from 745m). Chase had used Dean's key (from last year's Phoxocephalid presentation), but was not convinced of the arrived at species. Dean mentioned that his intention with creating his key was to try to get away from using mouthparts for identification (whenever possible), and to try to simplify the key for everyone. He then suggested that we should refer to Don's key (available on the SCAMIT website), as it's more thorough in describing and utilizing some of the more systematic character-states. Don added that only when it was unavoidable, did he add those more-difficult characters in his key.

Dean also mentioned that he has been working on updating the simplified *Photis* key he provided at last year's meeting (Artificial Key to adult male and female *Photis* of SCB, 23 May 2017). Although the original key works very well, he still references the written dichotomous key on occasion for characteristics that aren't listed in the simplified key.

Photis sp SD12 is not in the original key but was validated by another specimen review and was recently encountered in a CSD sample. Due to this occurrence, Dean feels more comfortable adding it to the key.

There are two SCB *Photis* species that have strongly produced Ep 3: *Photis* sp A and *Photis* sp SD12, both of which are not commonly seen. Although *Photis macrotica* does have a slightly produced Ep 3 it is more obtuse or squared than produced in that it doesn't extend posteriorly. *Photis chiconola*, a deep water species (1000+m) also has a blunt, obtuse Ep 3, but is very rarely encountered.

Don also mentioned that for *Photis* sp A, a striking characteristic is that the coxae are massive and extend ventrally so that the legs are completely covered. He asked if the same were true for *Photis* sp SD12? Dean stated that the coxae of the latter are long and thin, but coxae 4 does not expand into a triangular shape like that of *Photis* sp A. The coxae of *Photis* sp SD12 are not broad but they are elongated and only moderately setose along the ventral margin. They are not so long as to cover the entire pereopod. Don asked if they were strap-like, and Dean confirmed that coxae 1 – 4 are all strap-like. *Photis* sp SD12 is found in offshore waters (recently collected in San Diego at station B11, 88m), and are also colorful (mottled coloration). Don asked if they were similar in coloration to *Photis* sp OC1, and Katie asked if it was a sort of a 'peppery' coloration. Dean stated that they were not 'peppery', but rather broad splotches along the carapace and on the pereopods. Tony asked if the pigmentation carries onto the coxae, and Dean replied that it does. Dean said he'll work on getting some photos taken of the CSD specimen.

Don asked if anyone had noticed any changes in the makeup of our *Photis* complement in recent years? Or if people have been seeing the northern forms decreasing, while the temperatures rise? Tony mentioned that he's noticed lower abundances of *Photis lacia* than in previous years. Dean agreed and has noticed the same decline.

Dean then suggested that *Nebalia pugettensis* Cmplx might just be a single species. After having looked at multiple specimens, he believes it may be more accurate to call it something other than 'complex'. Don suggested defining some of the characteristics and perhaps creating a provisional species.

Dean mentioned he's come across some Harpiniopsids that have a short pointed Ep 3 (as opposed to rounded with no hook at all, as the key describes); he's working on updating this portion of the key as well.

Dean has been working on updating and expanding the Mysid key (originally created by Ron Velarde and Don Cadien, 1992).

With that Dean concluded his portion of the meeting and opened the floor for Ben.

The purpose of Ben's portion of the meeting was to continue going through the Taxonomic Toolbox for Arthropods, and determining whether changes needed to be made. Ben, as previously, was recording any changes that will later be provided to Dean Pentcheff for website updates.

Picking up where we left off at the last meeting, Ben began by asking if anyone had a chance to look for species photos to add to the website. The general consensus was 'not yet'. His goal is to start a catalog of photos by agency/organization, that are "shareable" for the SCAMIT website.

Ben also asked if DCE would be willing to release their training materials to the SCAMIT website. Tony said that although he has no personal issues with providing the materials, his concern is those materials actually belong to the agencies that contracted DCE, who in turn created the material for the purposes of training their employees. Dean said that his hesitation in the past was that some of these materials have been works-in-progress, but now with the process of training, some kinks/issues in the training material have been resolved. His other reason for hesitating is because some of the materials may have pictures, etc. that may not have been properly referenced, so posting it on the website might be an issue. Don mentioned that Dean Pentcheff will most likely have experience with the legalities of this type of thing and may be able to provide some insight here.

The Toolbox Review picked up where it was left after the last meeting, with the Superorder Peracarida.

- For order Mysida, Dean will update and provide his updated Mysid key (and it will replace the rest of the Mysid keys in the Toolbox).
- For Order Tanaidacea, Dean suggested that Don's write-up on Tanaids should be included (under 'Other Useful Tools" for Tanaidacea).

After reviewing the Isopods, we moved on to Order Cumacea. We were only able to go through the first two families in the Toolbox (Family Bodotriidae and Diastylidae), and due to time constraints, decided this would be a good place to end the meeting. The remaining families of Order Cumacea, and all of the Amphipoda will be reviewed at a later date.

Publication Date: February 2020

10 JUNE 2019, APLACOPHORA, OCSD

Attendance: Kelvin Barwick, OCSD; Terra Petry, Chase McDonald, Jovairia Loan, Don Cadien, LACSD; Greg Lyon, CLAEMD; Mike McCarthy, consultant; Wendy Enright, Megan Lilly, CSD; Kevin Kocot, Univ of Alabama; Patricia Seabourne

The business meeting began with Megan stating that she will be doing her best to catch up on newsletters over the next year and hopes to be back up to "current" by Spring of 2020 (after the B'18 deadline).

Kelvin then gave a brief presentation on Jim McClean's notebooks. During this presentation an "Action Item" list for Kelvin evolved:

- Find out the cost of scanning the remaining rolls of film that Jim used to create his manuscript and then write a proposal to the Executive Committee to use publication grant funds to have these images scanned
- Have a meeting/poll (?) to discuss how to make the information available
- Discuss online hosting possibilities with Dean Pentcheff
- Don suggested asking Pat LaFolette how he approached scanning the images

With the business meeting concluded we moved on to a presentation by Kevin Kocot. He shared images of unusual aplacophora sampled in the Antarctic, Iceland, and other locales. For the purposes of identification he used a combination of histology slides, SEM images, and DNA sequencing.

After Kevin's presentation we moved on to looking at specimens "on hand". The various agencies discussed birefrigence techniques, and efforts were made to try to create consensus about use and interpretation.

Megan had brought a chaetoderm specimen from B'18 10276 (CSD 8705), 31 July 2018, 87m. It was debated between *Falcidens longus* and "juv" Chaetodermatida. Consensus was reached for *F. longus*. CSD specimens of *Chaetoderma pacificum*, and *C. nanulum* were also examined.

Greg Lyon had brought numerous specimens which he had taken time to ID prior to the meeting, and was seeking verification. We examined and verified the following:

- *Limifossor fratula* - B18-10359 - 680m
- *Falcidens hartmanae* - B18-11000 - 380m
- *Chaetoderma marinelli* - B18-10257 - 80m
- *Chaetoderma nanulum* - B18-11000 - 380m
- *Chaetoderma pacificum* - B18-10304 - 168m

After reviewing Chaetoderms we briefly touched on two trawl invertebrate issues, for which Megan had received review requests. Megan shared specimensof *Dendraster terminalis* and *D. excentricus* and showed/discussed the differences in test and spine morphology. She also quickly reviewed how to separate *Pagurus armatus* and *P. spilocarpus* and had created a "field ID sheet" which she has since distributed.

NO MEETING JULY 2019

AUGUST 2019, 13TH INTERNATIONAL POLYCHAETE CONFERENCE

The 13th International Polychaete Conference (IPC13) was held aboard the Queen Mary in Long Beach, California from August 4 thru 9. SCAMIT members Leslie Harris (Vice President), Larry Lovell, and Bruno Pernet were part of the IPC Committee that hosted the conference. Over a hundred researchers, students, and working taxonomists from all over the world were in attendance. Eighteen SCAMIT members were present including POTWs (CSD, OCSD, LACSD, CLAEMD, and CSF), consulting organizations (DCE, MCT, and ARC), and members from various museums and universities. In the opening remarks, OCSD was acknowledged for their co-sponsorship of the conference and SCAMIT was thanked for their contribution to the IPC13 student support fund. The first day, volunteers staffed a booth to distribute SCAMIT informational materials, allow guests to peruse the website, and enjoy (and perhaps purchase...) SCAMIT swag.

Over 125 papers and posters were presented with wide ranging symposia topics including, Systematics, Evolution, Diversity, Biogeography, Physiology, Ecology, and Morphology. There were a number of presentations that showcased the use of various molecular techniques searching for possible hidden diversity at the species, generic, and family levels. Similar techniques were presented in a biogeographic context to look at cryptic diversity and genetic connectivity between adjoining deep-water basins.

SCAMIT Members attend the 13th International Polychaete Conference
4-9 August 2019, Long Beach, CA

Many papers looked at Polychaetes as bioengineers, exploring various tube-building techniques and burrowing strategies. Other interesting papers included: a look at the swimming behavior of the holoplagic *Tomopteris*; potential for saltational evolution in the anatomy of a Syllid; the evolution of Charlie Chaplin worms (Histriobdellidae); and the mapping of neuropeptides in the muscle cells associated with the penis of Dinophilidaes (1 mm polychaetes!). A look at the functional morphology of Sternaspidae (a locally common and enigmatic taxon) was a standout, but in the end, the underwater videography of annelids by Nannete Van Antwerp stole the show!

Presentations on new taxonomic hierarchies constructed through the use of phylogenetics included:

- Paulo Alves (Universidad Federal Fluminense):

  Nereidinae and Gymnonerinane are no longer considered monophylogenetic

  Melinnae does not branch into the same clade as Ampharetinae, but rather is revealed to be a sister group of Terebellidae

  The elevation of Polycirrinae, Thelepodinae, and Terebellinae to each of their respective family levels (Nogueira et al. 2013) may not be genetically valid. Phylogenetics puts Thelepodinae as a sister group to Terebellidae, and Polycirrinae actually nests within Terebellinae.

- Jenna Moore (Florida Museum of Natural History):

  Mesochaetopteris and *Chaetopteris* are monophyletic and sister clades

  Phyllochaetopterus is nested within *Spiochaetopterus*

- Polina Borisova (Shirshov Institute of Oceanology):

  Lumbrneris appears to be paraphyletic

  Ninoe and *Gallardoneris* are monophyletic

  Several characters associated with jaw morphology of Lumbrinerids viewed as synapomorphies appear to actually be homoplastic

However, per SCAMIT customs, our local taxa will have to go through a rigorous vetting process before any of these hierarchal changes are potentially reflected in our own Species List.

Two local POTW taxonomists presented posters. Brent Haggin of LACSD presented on his work with cryptic species of Orbiniids. Veronica Rodríguez-Villanueva of CSD was a co-author on three posters—1) on community and structure of soft bottom assemblages of the northwestern coast of Baja California, Mexico, 2) on spatial distribution of Cirratulid species along the west coast from Tijuana-Ensenada in relation to environmental conditions, and 3) on the levels of infestion of an undescribed *Polydora* species on the local farm stock of clams in Baja California, Mexico. Other SCAMIT members that presented included a poster by James Blake on a new species of *Atherospio* from the eastern Mediterranean Sea, and an oral presentation by Bruno Pernet on the distribution limitations of *Ficopomatus enigmaticus* in California.

Pat Hutchings of the Australian Museum presented an essay on the lamentable, yet still common, practice of applying European names to animals found half way across the globe. The example that was given was of Day's 1967 monograph on South African Polychaetes, in which he used many existing European names for local taxa; a common practice at the time. Locally, Olga Hartman did much of the same in her own work with Eastern Pacific taxa. This has led to the explosion of species having global distributions when they clearly should not. With no other choice, these name usages are perpetuated by non-taxonomists in most contemporary ecological reports, as well as by many non-ecologists in developmental, genetic, and systematic papers focusing on medical research.

Carol Simon (Stellenbosch University), a South African researcher, outlined a program and methodology which establishes a framework to begin tackling this situation for their local fauna. Perhaps she will present more on this at the next meeting (IPC14) which she will host in Cape Town, South Africa in 2022.

Touching memorials were given for notable Polychaete researchers who had passed away since the last meeting in 2017. Particular attention was given to Dr. Reish, who chaired the meeting the last time it was held in Long Beach. Dr Reish left an immense legacy among SCAMIT members and on Southern California taxonomy. Additionally, a history of the Alan Hancock Foundation was presented, as well as a midweek excursion to visit the Foundation's building on the campus of USC. Overall the conference was extremely informative, very inspiring, and the future of polychaete taxonomy looks to be ever growing and flourishing. SCAMIT was well represented and all who attended were grateful to have participated.
- Jennifer Smolenski & Kelvin Barwick

2018–2019 SCAMIT TREASURY SUMMARY

As dictated in our by-laws, the 2018–2019 Treasury Summary is attached. Please note that it discusses the status of our publication grant fund.

LITERATURE CITED

Nogueira JMM, Fitzhugh K, Hutchings P. 2013. The continuing challenge of phylogenetic relationships in Terebelliformia (Annelida : Polychaeta). Invertebrate Systematics 27:186–238. doi:10.1071/IS12062

Publication Date: February 2020

Please visit the SCAMIT Website at: www.scamit.org

SCAMIT OFFICERS

If you need any other information concerning SCAMIT please feel free to contact any of the officers at their e-mail addresses:

President	Kelvin Barwick	(714)593-7475	kbarwick@ocsd.com
Vice-President	Leslie Harris	(213)763-3234	lharris@nhm.org
Secretary	Megan Lilly	(619)758-2336	mlilly@sandiego.gov
Treasurer	Erin Oderlin	(310)648-5477	erin.oderlin@lacity.org

The SCAMIT newsletter is published every two months and is distributed freely to members in good standing. Membership is $20 for an electronic copy of the newsletter, available via the web site at www.scamit.org, and $35 to receive a printed copy via USPS. Institutional membership, which includes a mailed printed copy, is $65. All correspondences can be sent to the Secretary at the email address above or to:

SCAMIT
PO Box 50162
Long Beach, CA 90815

SCAMIT Treasury Summary
2018-2019

Below is the treasurer's report for 2018-2019. Last year we raised dues for the first time since the start of SCAMIT in 1982 from $15 to $20 for electronic memberships, $30 to $35 for hardcopy memberships, and $60 to $65 for institutional memberships. We have over 150 members across the US and worldwide. SCAMIT did not award a publication grant this past year. Please help get the word out that these funds are available. As stipulated in our grant policy, we have **$7,324.19** or 25% of our operating budget of $29,296.75 available for publication grants this year. The taxonomic database support tools on our website were maintained by our webmaster. The database expense totaled $517.50.

Account Balances (as of 5/31/19)

Checking	**$ 19,257.32**
Certificate of Deposit	**$ 10,039.43**
Total	**$ 29,296.75**

Income

2018-2019 Membership dues	$ 2,389.70
Interest from CD	$ 5.04
Total	**$ 2,394.74**

Expenses

Meeting refreshments	$ 261.96
Executive Committee Luncheon	$ 145.75
All-Member Christmas Luncheon	$ 196.79
Website Content & Design	$ 517.50
Newsletters (printing/postage)	$ 212.71
2018 ($136) & 2019 ($140) PO Box Renewal	$ 276.00
Don Reish Memorial IPC13 Student Donation	$ 2,000.00
Total	**$ 3,610.71**

SOUTHERN CALIFORNIA ASSOCIATIONOF MARINE INVERTEBRATE TAXONOMISTS

September–October, 2019 SCAMIT Newsletter Vol. 38 No. 3

Stachyptilum superbum CLAEMD, B'18-10353, 585m from the Santa Monica Basin.

This Issue

9 SEPTEMBER 2019, B'18 MISCELLANEOUS PHYLA FIDS, OCSD 2
19 SEPTEMBER 2019, B'18 POLYCHAETE FIDS, NHMLAC 5
7 OCTOBER 2019, B'18 MOLLUSK FIDS, LACSD 7
24 OCTOBER 2019, B'18 MISCELLANEOUS PHYLA FIDS, OCSD 9
LITERATURE CITED 11
SCAMIT OFFICERS 12

The SCAMIT newsletter is not deemed to be a valid publication for formal taxonomic purposes

Publication Date: April 2020

9 SEPTEMBER 2019, B'18 MISCELLANEOUS PHYLA FIDs, OCSD

Attendance: Don Cadien, Jovairia Loan, LACSD; Cody Larsen, Jennifer Smolenski, CLAEMD; Ben Ferraro, Kelvin Barwick, OCSD; Megan Lilly, Wendy Enright, CSD; Dean Pasko, DCE

During the business meeting, a discussion arose regarding the B'18 data submission deadline of February 2020. This deadline needs to be met in order to allow LACSD time to complete the re-ids prior to the final deadline. We all agreed to have at least one meeting per taxa prior to the February deadline. Upon review of upcoming meetings, we noted that all taxa except arthropods were scheduled prior to Feb 2020. We decided to hold the arthropod meeting in January 2020.

UPCOMING MEETINGS

Visit the SCAMIT website at: www.scamit.org for the latest upcoming meetings announcements.

A need to quickly distribute ID sheets on new or unusual animals found in B'18 samples was stressed as important if we are all to "stay on the same page". Attendees agreed but noted that since they are often quickly "throwing something together" and the end result is nowhere near a legitimate voucher sheet, there is some hesitancy to distribute the sheets on the SCAMIT list server and risk embarrassment. However, most people are willing to distribute their ID sheets with a caveat that the sheet is not to be considered a formal or final voucher sheet.

Jennifer spoke up and stated that the polychaete people will need to meet at least one more time after the upcoming meeting on 19 September 2019 since most polychaete IDs for each agency will not be accomplished until after this meeting.

Kelvin then gave a brief overview of his attendance at the recent IPC 13 (International Polychaete conference). He enjoyed himself, said it was a good meeting and shared a few images. He noted that the SCAMIT logo was prominently featured in the IPC handouts. A Brazilian student came and thanked him personally since SCAMIT's donation had helped cover her costs, allowing her to attend; SCAMIT donated $2000 to the student grant fund. Kelvin had hoped to run side by side photos of SCAMIT members in attendance at the previously held IPC in Long Beach (IPC 3), with the current year's photo, but this goal was not achieved. Perhaps this can be accomplished in a future edition of the newsletter. [Editor's note - Please see the previous issue of the NL (Vol. 38 No. 1&2) for a more comprehensive write up on the IPC 13]

Jennifer then had the floor and raised a subject that was discussed frequently at the IPC 13. Many other fields are starting to rely on taxonomic data for information, and taxonomy is starting to cross science disciplines. One example is the medical field, which needs certain species for research and depends on someone with taxonomic knowledge to supply them. However, in many countries, taxonomists are few and far between and people trying to learn taxonomy are often stuck with having to use old literature and outdated or incorrect names. Because of this, people are being encouraged to create provisional names. For instance, there is push back against using European names if working in Africa; similarly, not using deep water species for intertidal work, etc. It has been stressed that taxonomists should create a new species list even if they do not have the right name. In the past there has been a trend for "cosmopolitan" species, but in reality, the animals were just being misidentified and the wrong names were being applied, which obviously was not an accurate reflection of a species distribution. Don chimed in and said, "Cosmopolitan is a magazine, not a species".

Since we were reviewing conferences, Kelvin discussed his attendance at the World Congress of Malacology meeting (August 2019). It was held at Asilomar, California and approximately 250 people attended. Many of the "big names" in malacology were there. SCAMIT was recognized by Dr. Susan Kidwell, who gave the plenary talk and her final slide had our logo, along with SCCWRP, and other agencies that have assisted her research. Wendy also attended the conference and noted that grad students were doing new and interesting things, such as using paleontology to look at ancient climate change. Wendy and Jennifer had similar thoughts about their respective conferences, that while there is still plenty of research being done with regards to DNA, there is a return of more papers looking at subjects like ecology, symbioses, etc.

Don Cadien was not to be outdone if there was going to be a discussion about meetings attended. To that end, he told us about his experiences at the recent DISCO (Diversity Initiative of the Southern California Ocean) Bioblitz from 19 August through 5 September 2019. The Bioblitz was a joint effort between the Natural History Museum of Los Angeles County (NHMLAC) and the Florida Museum of Natural History. Gustav Paulay (University of Florida) and members of DISCO are working on building a genetic library. Don had a great time and enjoyed socializing with people from all over the country; Greg Jensen, Gretchen Lambert, and Gustav Paulay were just three names he mentioned. The event was held in a large open warehouse which is the future AltaSea campus at the Port of Los Angeles. The NHMLAC brought in tables, chairs, plastic ware, and other supplies for visiting scientists. Local attendees brought their own scopes and lights, while the City of LA (CLAEMD) brought in extra scopes for out of town participants. The work was divided into lab and field efforts. Field sampling methodologies included, benthic grabs, trawling, diving, and dock scrapings. CLAEMD and LACSD assisted with trawls inside and outside of the harbor, and CLAEMD chartered scientists along transects over the Redondo Canyon for grab samples. Volunteers from NHMLAC and elsewhere came to process and live sort samples. Don talked about how difficult it was doing live identifications because the animals were moving, making focusing on a particular structure difficult at best. However, he found it well worth the effort because it was fascinating to see so many species "live and in color". Once an animal was identified it was passed on to photographers for live photos. Once the photos were complete, tissue samples were taken for future DNA analysis. Collected samples were frozen every night. The efforts were very successful, and a large number of tissue samples were attained, which will create an impressive database. Don worked on a wide variety of taxa while Gustav focused on echinoderms. However, Gustav frequently ended up in the field, so Don stepped up and assisted with echinoderms as well. There was an amphipod worker, Brittany Cummings from the University of Florida, who helped Don with some of the Crustacea. Of note, Brittany was the sole American amphipod researcher that went to the European Amphipod Congress. Leslie took the lead on polychaetes and many amusing arguments and hijinks arose over who should work on the Sipuncula, because they are now, after all, considered annelids. Some of the local POTW workers who came to assist with polychaete identifications were Bill Furlong, Brent Haggin, and Norbert Lee (LACSD). Marie Nydam from SOKA University was present to assist Gretchen Lambert. Dr. Tom Turner from UCSB came down for a few days to work on sponges, and Megan McCuller traveled from the East Coast to work on Bryozoans. It was a massive and exhausting project with many taxa processed and a large variety of habitats sampled, both inside and outside the harbor. The days were long, usually lasting 12-14 hours, and this went on for 15 days. Bioblitz personnel were mostly cycling through but Don stayed for the duration. SCAMIT was well represented among the expert taxonomists present. The efforts during those two weeks should make a significant contribution to the molecular library for near shore invertebrates plus a few pelagic species. Don heartily recommends the experience to anyone who can get involved.

Publication Date: April 2020

Nobody was paid except for people who were there on paid time from agencies/museums. Some participants had flights, food, and lodging paid for but there was no salary. The timing of Bioblitzes are dictated by the availability of funds. At the end of each day there would be a slide show called "animal of the day". Photos of interesting critters taken that day were shown and people would lobby on behalf of favorites, culminating in a vote with winners from different phyla selected.

A long and interesting business meeting came to a close and we turned to the topic of the day, B'18 Miscellaneous Phyla FIDs.

CLAEMD

Echiura FID - One large and one small. The larger specimen turned out to be an *Arhynchite*. The presence of a few "frills" on the rims of the nephrostomes was noted. When Jennifer dissected the animal there were hundreds of small organisms that spilled out with the fecal pellets. No one was quite sure what they were, but they might have been juveniles. The smaller specimen was dissected but left at Echiura due to a lack of internal structures.

Enopla FID - juvenile specimen; it was quickly agreed to "just leave it at Enopla".

Tubulanus sp A - this started a lively discussion regarding the importance of color and pattern in the esophageal region, and which of these two characters takes priority when determining species. We reviewed attendees' input on how they distinguish *Tubulanus* sp A from *T. polymorphus*. It turned out that DCE and CLAEMD rely more on the color of the pigmented esophageal region - dark brown or dark purple for *Tubulanus* sp A vs. pinkish to light brown for *T. polymorphus*. Whereas CSD is more concerned with pattern – *Tubulanus* sp A has a solid band which begins to break apart and "speckle" posteriorly, vs. *T. polymorphus* which usually has a relatively clean "end" to the pigment band that may fade out but does not have extended speckling in to the posterior.

DCE

FID Echiura - Upon dissection it turned out to be another *Arhynchite,* but the rims of the nephrostomes were much "frillier" than the CLAEMD specimen. Unfortunately, the posterior half was missing so there was no way to compare the anal vesicles. Those present felt both specimens were most likely *Arhynchite* but couldn't explain the difference in the degree of "frilling" on the nephrostomal rims. One suggestion was that it was possibly an indication of different reproductive phases, as the nephrostomal lips "function to collect differentiated gametes for storage in the nephridium prior to spawning" (sic) Pilger 1996. It was suggested that someone contact John Pilger at USC regarding variability in the frilling of nephrostomal lips in *Arhynchites*.

Lineus torquatus-type nemertean - Dean showed images of this bizarre animal which had a white ring preservation band prior to a pink pigmented esophageal region, and pronounced lateral sense organs (LSO), which are all Tubulanid characters. However it had deep, obvious, cephalic grooves, making it a Heteronemertea/Linedae. Cody had also seen this animal and created a voucher sheet naming it Lineidae HYP3. The voucher sheet is attached at the end of this newsletter.

Enopla - this was an unusual animal but Dean stated he will not be creating a provisional species. A discussion ensued around *Amphiporus cruentatus* as a possibility. Cody stated that the cerebral

blood vessel is very distinctive in this species and can be seen without clearing. He recommended viewing the image in Tony's voucher sheet (posted in the SCAMIT Taxonomic Toolbox).

Lastly, Dean brought up the problem, again, with "Lineid type" Heteronemertea that have either just a very shallow cephalic groove or a cephalic line. The group agreed that we need to create something more descriptive with images of the variability and written descriptions. All agencies see animals that fall within this morphological grouping but don't apply consistent name usage. Lineidae Complex 1 was suggested and met with a positive response. However, it was too late to apply this to the B'18 data as most taxonomists were at least part way through their samples. A suggested protocol for future samples was to separate all those animals that fall within this category and they will be revisited at a future meeting. Dean offered to distribute some draft voucher sheets on these animals for review to see if they fall within our concept of the "Lineidae complex".

19 SEPTEMBER 2019, B'18 POLYCHAETE FIDS, NHMLAC

Attendance: Larry Lovell, DCE; Veronica Rodriguez-Villanueva, Maiko Kasuya, Gabriel Rodriguez, Adam Webb, Ricardo Martinez-Lara, CSD; Norbert Lee, Christine Boren, Bill Furlong, Brent Haggin, LACSD; Ernie Ruckman, Rob Gamber, Kelvin Barwick, OCSD; Greg Lyon, Erin Oderlin, Jennifer Smolenksi, CLAEMD; Angelica Zavala Lopez, MTS; Leslie Harris, NHMLAC

The business meeting was brief, and attendees started the day with a presentation by Norbert Lee titled: "**Lateral Stain Patterns of Common Palos Verdes *Spiophanes***"

The focus was primarily on lateral stains and 4 species in particular were addressed: *Spiophanes fimbriata, S. berkeleyorum, S. duplex, S. kimballi.*

Spiophanes fimbriata

- Usually deep water (~300 m)
- 0+1 type chaetal spreaders
- Median antennae present
- MG stain: Dark staining lateral bar on setiger 7
- MG stain: Solid stain on setigers 8-9 on both sides

Spiophanes berkelyorum

- Common at 30-1500 meters
- 1+2 chaetal spreaders
- Median antennae
- MG stain: Transverse ventral T-shaped stain on setiger 8
- MG stain: Dark lateral spot on setiger 8
- MG stain: Lateral bar stain on setiger 9

Spiophanes duplex

- Common from 30-150 meters
- 2+3 chaetal spreaders
- No median antennae
- MG stain: speckled/diffused ventral stripes starting around setiger 3 or 4
- MG stain: setiger 7 & 9 dark lateral bar stain with a Y-shaped stain laterally on setiger 8 with the opened shape of the "Y" facing the dorsum

Spiophanes kimballi

- Occurs at all depths but common between 30-150 meters
- 2+3 chaetal spreaders
- Median antennae present
- MG stain: 3 stripes running ventrally
- MG stain: Lateral dark spot on setiger 8

Norbert created a character table that includes ventral and lateral stain patterns. He noticed that MG staining on specimens older than 8-10 years was not as apparent as those on more recently preserved specimens. The stain patterns were "hit or miss" on smaller (<1 mm)/juvenile specimens but were clearly evident on larger specimens (>2-2.5 mm). His suggested protocol for MG staining is as follows: stain for at least 30 mins and for as long as a couple hours, and de-stain for approximately 15-30 minutes.

Norbert will make his presentation and updated character table available in the SCAMIT Taxonomic Toolbox.

Leslie took the floor after Norbert's presentation and wanted to share a recent publication of note: A new species of Chrysopetalidae was found at Catalina and San Clemente Islands at 10 meters hard bottom (Watson et al. 2019).

Then, Leslie gave a brief summary of the Urban Ocean Expedition Bioblitz and showed a few videos from the project.

Next, Brent Haggin presented on the misuse of names from around the world which was a large topic discussed at IPC 13 (see minutes from previous meeting). He took the SCAMIT list of polychaetes and compared them to WoRMS (World Register of Marine Species) as to where they were described. He was able to pinpoint regions around the world from where we get many of our names. He was then able to quantify the number of species as well as classify them by family. It turns out that ~50% of our polychaete species list comes from areas outside of the SCB. Therefore, potentially half of our list may need to be reevaluated. This prompted a discussion as to the use of European names to describe our local species. Leslie really pushed for the use of provisional names and renaming our "global" species with provisional names. Kelvin countered, saying that SCAMIT can't really accept the use of different /new names due to potential consistency problems between agencies (i.e. POTWs). Until someone does the work to describe

these local species, creating voucher sheets which highlight differences from the European species, new provisionals can't be accepted.

It was then time to start examining FIDs. This began with Kelvin presenting photographs and draft provisional voucher sheets on the polychaetes giving him trouble from a Channel Islands Bight station located just north and east of San Miguel Island. The sediment was coarse sand and shell hash. Kelvin presented images of a couple of *Scoloplos* sp that had, in his experience, abnormally long palpodes. Brent felt that it was within variability for known local species of *Scoloplos* sp.

CLAEMD taxonomists brought two B'18 FIDs which were both epitokous nereids from two different shallow harbor stations. After working on them for some time, Leslie concluded that they were indeed two different species, and that their identifications were not any of our typical nereids. With their posteriors too modified (due to being epitokes) for further identification, their IDs were left at the family level, Nereididae.

7 OCTOBER 2019, B'18 MOLLUSK FIDS, LACSD

Attendance: Kelvin Barwick, OCSD; Terra Petry, Jovairia Loan, Don Cadien, Chase McDonald, LACSD; Greg Lyon, CLAEMD; Wendy Enright, Megan Lilly, Ryan Kempster, CSD; Tony Phillips, DCE

Kelvin started the day with announcing upcoming meetings. He reminded attendees that B'18 data is due in February 2020, so we only have a few months left to schedule meetings for tackling B'18 FIDs.

Kelvin then gave an update on the "McLean project". Some scanning work is still ongoing; Pat LaFolette is working on the Pyramidellids. During a previous SCAMIT meeting an action item was created to address what to do with all McLean's film. Would SCAMIT be interested in scanning the remainder? Kelvin did a bit of research, but it turned out to be cost prohibitive. Don made note that scanning is only step 1, and there is much work to be done after scanning. There was a suggestion that we could perhaps use the Document tab on the SCAMIT website to house the 900 GB (~1 terabyte) of what is scanned to date, but it would be raw material/images. The Annual SCAMIT Executive Committee meeting is 14 November 2019 and Kelvin will bring up this issue to our webmaster, Dean Pentcheff. Don wanted to double check that SCAMIT has the legal right to distribute the images. Kelvin had checked with NHMLAC and they had responded they were "OK with it", but it was suggested to get it in writing, and Kelvin agreed.

Kelvin passed around a copy of the Zoosymposia "McLean Memorial Volume" (2019) which is quite thorough and useful for the Families contained within.

With that we started reviewing specimens.

CLAEMD

Greg shared photos of various FIDs, and a discussion ensued about being able to reliably identify *Cyclocardia gouldii* at juvenile stages. We were referred to the convention of backing off to genus at a size of ≤ 5mm developed at the 2012 meeting with Paul Valentich Scott and Gene Coan (although unfortunately not recorded in the NL for that meeting) and reiterated at a May 2018 meeting (Vol 37. No. 1). Greg also showed some nice photos of hydroids growing on *Axinopsida.*

Lasaeidae? FID - SMB 585m; *Vesicomya* was suggested but Greg will need to look at the hinge for verification. The specimen, approx. 2mm in length, was damaged during the attempt to examine the hinge, so family placement could not be confirmed.

Corbulidae spp - Two were identified as *Caryocorbula porcella* and one was tentatively IDed as *C. luteola*. The tentative IDs from the meeting were subsequently confirmed by examining the hinges.

Cymatioa electilis – Greg had emailed Paul Valentich Scott about this animal and Paul suggested looking for undulations on the internal edges of the valves. Greg reported at the May 2018 meeting (Vol. 37 No. 1) that ventral undulations may be absent in specimens < 5mm length, and examination of the hinge (looking for 2 cardinal teeth in the left valve) is necessary to identify juvenile specimens. The specimens presented at the current meeting were later confirmed as *C. electilis* based on hinge examination.

Laevidcardium juv - 5m in Long Beach Harbor; examined and confirmed as *Laevicardium substriatum*.

Crockerella evadne FID – 100m Channel Islands station. The majority agreed the specimen was odd and likely not *evadne* because its mid-whorl carina appeared to be formed by a pair of spiral cords. However, subsequent closer examination found a significant damage scar on the body whorl. The unusual appearance of the carina above the scar was likely due to damage or erosion. Below the scar, the carina was smooth and single, consistent with *C. evadne*.

Boreotrophon FID – 125m Channel Islands station. Tony and Don both felt this fit SCAMIT members' broad interpretation of *Propebela turricula*. Further investigation after the meeting has identified at least two forms encountered in the SCB that have been reported as *P. turricula* but differ from the described species and warrant provisional status. Voucher sheets are in prep and will be distributed for review. [Editor's note: There has since been much discussion around *Propebela* spp and this saga will be continued in a future NL]

Gastropod FID, juv – 90m Channel Islands station; determined to be a juvenile Nassarid.

Amphissa bicolor FID – 373m; consensus was to leave it at Family (Columbellidae).

Columbellidae FID – 22m Los Angeles harbor, station 10094; IDed as *Alia carinata.*

Acteocina FID – 15m Los Angeles harbor, station 10100; a conversation about *A. harpa* vs *A. inculta* developed. There was no consensus reached but the majority present felt it was *A. harpa*. It was recommended that the specimen be dried for a better look at sculpturing and if necessary, gizzard plates should be removed and examined. Gizzard plates later confirmed *A. harpa*.

Crepidula FID, juv - 5m, Long Beach Harbor; it was recommended that the interior shelf be checked to assist in identification. The shelf was straight, with a slight anterior projection on both sides; and the specimen was ultimately identified as *Garnotia naticarum*.

CSD

Propebela FID - B'18 10393, 93m; the genus was confirmed but it was felt the species was not *turricula*. It was most likely the same as the species sampled by CSD during B'03, and once confirmed will be called *Propebela* SD1. [See comments above regarding *Propebela*]

24 OCTOBER 2019, B'18 MISCELLANEOUS PHYLA FIDs, OCSD

Attendance: Megan Lilly, Wendy Enright, CSD; Kelvin Barwick, Ben Ferraro, OCSD; Don Cadien, Jovairia Loan (Jojo), LACSD; Tony Phillips, Dean Pasko, DCE; Jennifer Smolenski, CLAEMD

Kelvin opened the business meeting declaring that he had tentatively set the date for the Annual SCAMIT Membership meeting for 9 December 2019, however, he still needs to verify this with SCCWRP. He then mentioned the upcoming Bryozoa workshop that is being coordinated by Leslie at the NHMLAC. The dates for the workshop are 16 - 17 December 2019 and it is free to members or $25 for non-members. It was pointed out that an annual SCAMIT membership is only $20, so if one joined SCAMIT they would "get a discount".

The next WSM (Western Society of Malacologists) meeting will be held at CICESE (Ensenada Center for Scientific Research and Higher Education) in Ensenada, Mexico. Dates will be announced later. As far as future SCAMIT meetings, there was some discussion as to whether both an arthropod FID and a polychaete FID meeting should be held in January or if an arthropod FID meeting needs to happen sooner. Dean mentioned that he had not heard a lot on the B'18 list server, or elsewhere, that indicated a B'18 FID arthropod meeting was necessary. Don mentioned that he had a few deep-water arthropods that he would like to share for input, and there are probably other FIDs pending. It was decided that the arthropod people would be queried, and a FID meeting will happen either next month in November, or in January 2020.

With that, it was time to move on to B'18 Miscellaneous Phyla FIDs. The meeting began with Megan showing an ID sheet she'd created for *Eugyra arenosa californica*. She had previously misidentified this species due to misinterpretation of the wide internal longitudinal vessels as branchial folds. She created a provisional species, *Molgula* sp SD1, which is now a synonym (in part, of authors SCB) of *E. arenosa californica*. The ID sheet showed internal characters and discussed both *E. arenosa californica* and *E. glutinans*, another possible species. It is attached at the end of this newsletter.

With that we moved on to examining FID specimens brought by the various agencies.

OCSD

Ascidiacea FID (one large, one small) - B'18 10245 (Santa Barbara Channel), 54m.
Larger specimen:

- Stigmata - Spiral (Curved)
- Branchial Folds - 6
- Gonad size and shape resembles *Molgula regularis*, but is not complete

After further dissection and discussion, the animal was confirmed as *Molgula regularis*.

The smaller ascidian was similarly structured but was missing gonads. It was determined by the group to also be *Molgula regularis*, because of similar appearance and proximity to (collected with) the larger specimen.

LACSD

Ascidiacea FID - determined to be *Agnezia septentrionalis*

Cnidaria FID, cf *Harenactis attenuata* - found to be the same as the CSD specimen from a similar depth. It was to become a provisional species, Actiniaria sp LA1 with Jojo creating the voucher sheet. However, Dean noted that it looked very similar to his Hormathiidae sp 1 and we decided that we needed to compare all the specimens at a future meeting and make a decision.

CLAEMD

Acanthoptilum FID - with sclerites covering polyps and leaves was considered to most likely be *Acanthoptilum scalpellifolium* Moroff, 1902. However, due to its juvenile nature it was decided that the identification should be left at *Acanthoptilum* sp.

DCE

Diadumene lineata - determined to be unidentifiable due to mesenteries not being countable and tentacles being extremely thin. Should be left at Actiniaria

Edwardsia handi - determined to be *Edwardsia californica*

Zaolutus actius, juv - confirmed

Anemonactis sp A, juv - confirmed

Actiniaria juv - confirmed; small specimens with elongate, thin tentacles, 8 pairs of mesenteries with strong retractor muscles, base appears to show point of attachment

Nematostella vectensis - determined to be too juvenile for identification; leave at Actiniaria. Don mentioned that the tentacles of *Nematostella* will be annulated due to the clusters of nematocysts contained within

Metridium sp - determined to be *Diadumene* sp; decision was partially based on sampled habitat. *Metridium* are either intertidal or adherent to hard substratum, unlike *Diadumene* which can inhabit soft substrates (in which this animal had been sampled)

CSD

Zaolutus actius - leave at Actiniaria; this animal was felt to be the same as Jojo's and will either become Actiniaria sp LA1 or Dean's Hormathiidae sp 1

cf Lineidae LAH1 - leave at Lineidae; this type of Lineid (shallow cephalic grooves/lines, small CSO's, etc) was discussed and we may form a species complex "Lineidae Cmplx 1", but that won't be applicable to B'18 data and will be created at a future date

Cerebratulus lineolatus - determined to be *C. californiensis*

Thesea sp FID – went to Gorgoniidae; this was an unusual specimen, and no one felt comfortable putting a species level ID on it. A sclerite prep was advised

Gorgoniidae
B'18 10260, July 2018, 39m, off Huntington Beach.

Edwarsia cf *juliae* – was thought to be either *E. olguini* or *Scolanthus triangulus*; basotrichs need to be examined

Zoantharia sp B – confirmed

LITERATURE CITED

Daniel L. Gieger, Lindsey T. Grove, and Jann E Vendetti (eds.). 2019. James H. McLean Memorial Volume. Zoosymposia 13. 346 pp

Pilger, John F. 1996. Echiura. Chapter 3, pp. 67-79 IN: Blake, James A., Paul H. Scott, and Andrew Lissner (eds.), Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and The Western Santa Barbara Channel. 305pp. Santa Barbara Museum of Natural History. Santa Barbara, California, U.S.A.

Watson, C., Ekin Tilic, Greg W. Rouse. 2019. Revision of Hyalopale (Chrysopetalidae; Phyllodocida; Annelida): an amphi-Atlantic Hyalopale bispinosa species complex and five new species from reefs of the Caribbean Sea and Indo-Pacific Oceans. Zootaxa 4671 (3): 339–368.

Please visit the SCAMIT Website at: www.scamit.org

SCAMIT OFFICERS

If you need any other information concerning SCAMIT please feel free to contact any of the officers at their e-mail addresses:

President	Kelvin Barwick	(714)593-7475	kbarwick@ocsd.com
Vice-President	Leslie Harris	(213)763-3234	lharris@nhm.org
Secretary	Megan Lilly	(619)758-2336	mlilly@sandiego.gov
Treasurer	Erin Oderlin	(310)648-5477	erin.oderlin@lacity.org

The SCAMIT newsletter is published every two months and is distributed freely to members in good standing. Membership is $20 for an electronic copy of the newsletter, available via the web site at www.scamit.org, and $35 to receive a printed copy via USPS. Institutional membership, which includes a mailed printed copy, is $65. All correspondences can be sent to the Secretary at the email address above or to:

SCAMIT
PO Box 50162
Long Beach, CA 90815

CITY OF LOS ANGELES VOUCHER SHEET

Lineidae sp HYP3

SCAMIT Vol. 38 No.3

Group: Nemertea: Anopla: Heteronemertea: Lineidae

SCAMIT CODE: None

SYNONYMY: None

Date Examined: October 2, 2019

Voucher By: Cody Larsen & Dean Pasko

DIAGNOSTIC CHARACTERS:

1. Large, deep horizontal cephalic slit. Transverse groove/white line at posterior end of cephalic slit.
2. Two-layered Heteronemertean musculature, with lateral nerve cord (LNC) embedded on the outside of the circular muscle layer.
3. Distinct two-toned preservation band in esophageal region, with a thin white band dividing the two colors; reddish-pink posterior of the white band, and a yellow-brown anterior of the white band.
4. Large, distinct lateral sense organ (LSO) present at posterior end of preservation band.
5. Cerebral sense organ (CSO) present at proximal end of cephalic slit, in the shape of a small circle.
6. Head shape is ovate (egg-shaped); anteriorly tapered with a broad base (similar to Cerebratulus).
7. Moderately sized mouth, but without distinctive ribbing or musculature.

SPECIMEN COLLECTION(S):

- CLAEMD, Station B18-11000 (~394 m), East Santa Barbara Channel, July 2018
- LACSD, Station B18-10333 (~406 m), East Santa Barbara Channel, July (?) 2018

ADDITIONAL COMMENTS/DETAILS:

- The coloration intensity anterior to the white band can vary, as observed between the three specimens examined. The above pictures depict the darkest anterior coloration of the three specimens, with the lightest having coloration similar to the background tissue. The posterior pinkish coloration can also vary, probably due to preservation.
- The presence of an LSO in a Heteronemertean is unusual, if not unheard of (?), likely because LNCs in Heteronemerteans are located interior to the outer-most longitudinal muscle layer and are presumably restricted from developing a contiguous connection to the dermal layers. In contrast, 3-layer Palaeonemerteans, which are the predominant bearers of the LSO character, have LNCs located exterior to the outer-most muscle layer (circular muscle), with easy access to the dermal layer.
    - Interestingly, after examining of the position of the nerve cord with serial cross-sections, there was no substantial LNC migration towards the dermal layer. Rather, cross-sections located across the LSO exhibited a glandular (?) mass extending inward from the dermis, towards the LNC.

RELATED SPECIES AND CHARACTER DIFFERENCES:

Lineidae sp SD1

- Similar yellow-beige background color.
- Well-defined horizontal slit, although narrow.
- Partially complete white transverse line crossing mouth (at posterior end of cephalic slit).
- Absence of two-tone coloration (preservation band) and white band in esophageal region; no LSO.
- Head shape is more linear (parallel margins, like *Lineus bilineatus*) vs ovate

Lineidae sp SD1

Lineus sp AV1 (collected from Avalon, 42m)

- Darker background coloration than Lineidae HYP3 and Lineidae SD1
- Large, deep cephalic slit. Partial transverse white line crossing mouth.
- Larger mouth than Lineidae HYP3 and Lineidae SD1.
- Absence of LSO (?) and two-tone preservation band.

Lineus sp AV1

Eugyra arenosa californica

(=*Molgula* sp SD 1)

This species has a history of confusion for SCB taxonomists due to misinterpretation of the large, thick, widely spaced internal longitudinal vessels, as "true" branchial folds. The other species of *Eugyra* to watch for is *E. glutinans,* but that species has gonads on both sides of the body, whereas in *E. arenosa californica*, they are only found on the left side, situated within the primary intestinal loop. The genus *Eugyra* is within the Family Molgulidae and has branched branchial tentacles and a kidney on the right side of the body.

Specimen photographed is from CSD station I-33, July 2019, 31m.

wide internal longitudinal vessels
no branchial folds
perfect double spiral stigmata
gonads inside primary intestinal loop

M. Lilly October 2019

SOUTHERN CALIFORNIA ASSOCIATIONOF MARINE INVERTEBRATE TAXONOMISTS

November–December, 2019 SCAMIT Newsletter Vol. 38 No. 4

Clypeaster rosaceus (Linnaeus, 1758)
ID by Dr. R. Mooi
Found on dock in San Diego Bay.
This is a Caribbean species and how it ended up in San Diego Bay is a bit of mystery but most likely it was a tourist trinket that was lost or tossed off a boat docked in SD.

This Issue

4 NOVEMBER 2019, B'18 ECHINODERM FIDS, OCSD 2
9 DECEMBER 2019, ANNUAL GENERAL MEMBERSHIP MEETING, SCCWRP 4
LITERATURE CITED 7
SCAMIT OFFICERS 8

The SCAMIT newsletter is not deemed to be a valid publication for formal taxonomic purposes

Publication Date: May 2020

4 NOVEMBER 2019, B'18 ECHINODERM FIDS, OCSD

Attendance: Kelvin Barwick, Ernie Ruckman, OCSD; Peter Bryant, UCI; Megan Lilly, CSD; Erin Oderlin, CLAEMD; Jovairia Loan, Chase McDonald, Don Cadien, LACSD; Tony Phillips, DCE.

Kelvin opened the meeting by reminding attendees about the upcoming annual All Hands Membership meeting at SCCWRP on 9 December 2019. We will be opening the nominations for SCAMIT Officers at that time. Normally the SCAMIT Executive Committee meets in the summer, but this year there were many delays, so the meeting is now scheduled for 14 November 2019. He encouraged anyone with concerns that they would like addressed by the Executive Committee, to contact him or any of the current officers, before the November meeting.

UPCOMING MEETINGS

Visit the SCAMIT website at: www.scamit.org for the latest upcoming meetings announcements.

The day started with Dr. Peter Bryant, UCI, introducing himself. He has an extensive history with genetic mapping and biodiversity studies. Below is an excerpt from his web page: https://devcell.bio.uci.edu/faculty/peter-bryant/

> *Monitoring Biodiversity:* We are working with students and local environmental organizations to photodocument and monitor local biodiversity, emphasizing terrestrial invertebrates (insects and spiders), and marine invertebrates (zooplankton). Projects include field studies of the distribution, seasonality and abundance of these animals, as well as studies of their life cycles. The resulting data are being used to build a comprehensive web site showing the diversity, life history, ecological roles, and conservation issues concerning these animals as well as plants and other organisms. A specific region of mitochondrial DNA, called the "DNA Barcode" is being used for matching adult animals with larval stages, and for species identification as part of the International Barcode of Life Project.

He attended the SCAMIT meeting to discuss his interest in zooplankton, and his work sequencing pelagic invertebrate larvae. Representatives from the different POTW agencies said they would seek permission for him to tag along on some of their trawls to continue his collecting efforts.

Turning to the taxonomy portion of the day, Megan brought a fun "show and tell" critter. A local San Diego fisherman noticed a sea lion playing with something strange on a dock. He threw the sea lion a fish to distract it and picked up its toy which turned out to be an unusual animal. It was brought to the CSD marine lab for identification and it was determined to be the test of a *Clypeaster rosaceus* (Linnaeus, 1758), confirmed by Dr. Mooi at Cal Academy (see cover images). *C. rosaceus* is a Caribbean species so how an individual (granted a dead one) ended up in San Diego Bay is a bit of a mystery. Although, sadly, the tests of these "sea biscuits" are often sold as curios in tourist gift shops. Perhaps it fell off someone's sailboat and was quickly snatched up by the sea lion as a new favorite toy. With show and tell over, it was time to turn our attention to local echinoderm FIDs.

CLAEMD

Holothuroidea FID – this turned out to be the detached tail of Molpadiidae. These often throw people for a loop since they contain ossicles and appear to have what looks to be feeding tentacles. However, Megan pointed out that these are actually structures that surround the opening at the end of the tail to try to protect the holothuroid from being parasitized by commensals, such as pea crabs, as well as just minimizing foreign body intrusion.

Brisaster FID – test length = 34.3mm and petaloid width = 4.2mm. These measurements mean the specimen fell between *B. latifrons* and *B. townsendi* on the regression line. Megan recommended backing off to *Brisaster* sp since it was a so called, "tweener".

Thyone benti FID – large individual, it was not U-shaped, as the literature suggests, but an examination of the ossicles confirmed the ID.

Amphioplus sp FID – juvenile animal with a disc diameter of < 4mm, so it was recommended to leave it at genus.

CSD

Amphiodia urtica (Lyman 1860) FID discussion - Megan has noticed, for the last few years, a greater variety in the degree and variation of pigmentation found on *A. urtica*. She continued to identify the various forms as *A. urtica* but was seeking other opinions. She brought some B'18 specimens (B'18 10266, 64m, and B'18 10267, 63m) that were morphologically similar in all ways except in level and pattern of pigmentation. Everyone present felt that they should continue to be called *A. urtica*. Megan finds this phenomenon puzzling; if the variation of pigment patterns was associated with different locales an argument could be made for some sort of environmental effect, but since animals within a sample can have no pigment, slight pigment, or be heavily pigmented, that argument can't be made.

Amphiodia sp A Haney 2008, B'18 10232, 14m - Megan doesn't often see this species so she was seeking confirmation, which she received.

Brisaster spp, show and tell - Megan brought large, good examples of *Brisater latifrons* (A. Agassiz 1898) (B'18 10325, 265m) and *Briaster townsendi* (A. Agassiz 1898) (B'18 10323, 390m) for comparison. She also brought 3 juvenile specimens of *B. townsendi* (B'18 10336, 430m) that even though small, could still be identified to species as they fit nicely on the regression line for *B. townsendi*. Their measurements (test length x posterior petaloid width) were: 30mm x 5mm, 27mm x 4.3mm, and 27mm x 4.6mm. This led to a discussion about when is it appropriate to speciate and when should a taxonomist back off. Since these animals were at or below the convention of 30 mm test length cut off, and smaller than the specimen brought by CLAEMD (34mm TL) which had ended up being left at genus *Brisaster*, it would be easy to argue they should be left at genus as well. However, Megan asserted that if an animal does fall clearly within a species on the regression line, even at small sizes, to go ahead and ID it, with the caveat that at least one additional person measure the animal to make sure the morphometrics are being consistently calculated.

Brissopsis sp LA1 Haney 2004 FID, B'18 10324, 426m – upon review it was decided that it was just an unusual looking specimen of *Brisaster* sp. The spines were a bit long and the gestalt of the petaloids was slightly off (proportions and relative placement on the test), but not enough to make it a *Brissopsis* sp LA1.

Publication Date: May 2020

Amphiura diomedea Lütken & Mortensen 1899, B'18 10372, 687m – Megan brought this specimen for show and tell. Questions arose as to how to separate it from *Amphiura arcystata* H. L. Clark 1911. There is a gestalt difference but for detailed descriptive differences Megan recommended Hendler's chapter in the MMS Atlas (Hendler, 1996)

OCSD

Nacospatangus laevis (H. L. Clark 1917) FID, B18-10389, 16 July 2018, 80m (north of San Miguel Island; coarse sand/shell hash; 3 specimens;) & B18-10391, 15 July 2018, 82m (Santa Barbara Channel, just northeast of Anacapa Island; coarse sand/shell hash;1 specimen) – The specimens were confirmed as *N. laevis*. This is one of Megan's favorite species of urchin and she took a moment to expound on their virtues. They are relatively rare, at least in most of the POTW standard monitoring programs. *N. laevis* prefers coarse, large grain size habitats, (indicated by the fact that these specimens were collected off the Channel Islands in coarse sediments) and CSD only sees them occasionally at a few of their southern stations in relict red sands. There are many distinctive features of this genus but one of the primary ones is the lack of an anterior ambulacral notch. Additionally, observed either live or dead, many small spots can be found interspersed among the spines that are ruby red in life and dark red in preserved specimens. Upon examination under a dissecting scope, these red spots reveal themselves to be swollen poison glands at the bases of the pedicellaria jaws. Poisoned-tipped pedicellaria do a good job discouraging the settlement of epibionts. It is a beautiful little heart-urchin with its snow-white appearance dotted with rubies and Megan hoped she had instilled an appreciation for this species in others, if maybe not with her same level of adoration.

9 DECEMBER 2019, ANNUAL GENERAL MEMBERSHIP MEETING, SCCWRP

Attendance: Kelvin Barwick, Ben Ferraro, OCSD; Wendy Enright, Ryan Kempster, Maiko Kasuya, Veronica Rodriguez-Villanueva, Katie Beauchamp, CSD; Jovairia Loan, Norbert Lee, Terry Petry, Chase McDonald, Brent Haggin, Christine Boren, Don Cadien, Bill Furlong, LACSD; Greg Lyon, Craig Campbell, Erin Oderlin, Joanne Linnenbrink, Cody Larsen, Jennifer Smolenski, CLAEMD; Leslie Harris, NHMLAC; Tony Phillips, Larry Lovell, DCE.

Kelvin opened the meeting by discussing lunch and its estimated time of arrival, the most important topic of the day. He then reviewed the day's agenda and started his "STATE of SCAMIT" address:

Everyone has been processing B'18 samples this last year and most meetings, subsequently, have been B'18 FID-related. Kelvin thanked all those taxonomists who had stepped up to lead and/or present at meetings.

SCAMIT had a "first" in 2019, awarding a $2000 grant to the student fund of the International Polychaete Conference (IPC-13). Kelvin reported that while manning the SCAMIT table at the conference, a student from Brazil took the time to come and personally thank SCAMIT as monies from the grant had allowed her to attend.

A new year has brought new challenges. The Species List Review Committee (SLRC) has been dormant but members continue to work behind the scenes. The next SLRC meeting will likely be after the February 2020 Bight'18 deadline.

Next Erin Oderlin gave the Annual Treasurer's Report:

- Dues were raised to $20 last year (from $15) and that was the first time SCAMIT has raised dues in many years. SCAMIT currently has approximately 150 members, and of those, about 40 used PayPal to submit their membership dues
- No publication grants were applied for, or awarded, in 2019
- Our website fees were approximately $520
- SCAMIT showed a small loss this year due to our $2000 grant to the IPC 13 student fund in memory of Dr. Don Reish
- Erin welcomes suggestions for alternate investment options to help SCAMIT generate more income, but she gently reminded everyone that whatever is suggested cannot create a lot of extra work for her. All SCAMIT officers volunteer their time and they only have so much of it. Kelvin also chimed in that even if SCAMIT had more money, at this point it is unclear what we would spend it on since we get few publication grant applications

The Vice President's Report was given by Leslie:
Leslie noted that many experts have expressed interest in presenting at SCAMIT meetings and these are good opportunities to encourage new members to join. For instance, the upcoming Bryozoa workshop with Megan McCuller (North Carolina Museum of Natural Sciences) promises to bring some new members. Some of these potential presenters work mostly on live and/or DNA-ready specimens, but Leslie maintains that having these dialogs and interactions is important in order to make progress in our identifications, even if it means collapsing things into a species complex for the time being.

She noted frequent meeting schedule adjustments due to Bight'18 efforts.

Some members participated in the LA Urban Ocean Experiment Bioblitz including Don Cadien, Brent Haggin, Bill Furlong and Norbert Lee from LACSD. There was also assistance from staff at CLAEMD.

- 4300 lots of specimens were added to the collections of NHMLAC and this count did not include what went to Florida or North Carolina
- DNA from those specimens was sent to BOLD for sequencing
- Next on the list for a Bioblitz are the Channel Islands, Sitka, Alaska, and more to come

SCAMIT Secretary, Megan Lilly, was out of town and unable to attend so that concluded Officer announcements. The next agenda item was a round table discussion among attendees.

Don Cadien started by discussing the impact of WoRMS and how we still need to keep "chugging along" to deal with provisional species. Leslie also brought up the topic of our region-specific expertise as opposed to outside investigators. Don noted that WoRMS is generally responsive to emails with suggestions and/or corrections.

Tony Phillips gave an update on the next Coan et al. book which will be the third in the series of bivalve bibles. This latest edition will address South American province bivalves. He then mentioned that DCE had been hired to do the taxonomy training for CLAEMD staff. He is currently reviewing their B'18 vouchers and is pleased to report they have done a great job with the accuracy of their identifications. And lastly, he is starting a new project comparing juvenile to

adult bivalves, and hopes to present at a future SCAMIT meeting. He is aiming for the summer or fall of 2020 for the final presentation.

Jennifer Smolenksi asked about the status of the digital list/photo project. Cody Larsen mentioned that ITIS might be a good starting point since, to date, SCAMIT has not had much success with this project. Kelvin noted that although it is a good idea, it is difficult to see who the person/team will be that would maintain that project. It was suggested/asked that B'18 trawl photos be posted in the Taxonomic Toolbox. Ryan Kempster mentioned that he has a site (shark-base.org) that already does much of what we are hoping to do. He offered to email Dean Pentcheff and discuss the feasibility. Leslie mentioned that Gustav Paulay is working on the WoRMS photo gallery, including west coast verified images, and thinks he would be interested in talking to us about strategies.

Erin Oderlin asked if anyone is not getting SCAMIT list server emails. If you are not, be sure to get in contact with her so she can update and/or verify your information.

Leslie then solicited the group for volunteers to be meeting presenters and/or hosts, and for suggestions for visiting scientists. Please contact her with ideas.

Ben Ferraro mentioned that there have been two Toolbox Review meetings for Arthropods but the updates are not quite done. He is hoping for one more meeting to finish needed revisions.

Katie Beauchamp said that she is finishing up the *Neocrangon zacae* (Chace 1937) vs. *Neocrangon resima* (Rathbun 1902) research paper. She mentioned that her EPA collaborator is having some troubles completing his part. She is hoping to finish up in the Spring. Don elaborated on the history of the two species and their distinction vs synonymy.

Larry Lovell inquired about the Bight'18 sample schedule. Currently April or May, 2020 is the target for the QC sample exchange and identification, with June 2020 being the goal for resolution meetings.

Brent Haggin has been looking at in-house provisional species (apart from those on the SCAMIT List) and is trying to acquire more information, especially on the older ones. He is hoping to jump start this process for all the agencies. He would like to see the backlog of orphan provisional taxa be addressed. Leslie suggested we put our in-house ID sheets into a Google drive or a similar digital shared storage space; this idea was supported by Veronica and Maiko. Kelvin warned that issues exist with different agencies having different IT security protocols and accessing online shared folders has become unwieldy. This all might require a meeting to get it started, hopefully sooner rather than later, to accommodate B'18 provisional species work. Cody volunteered to take the lead on setting up a file repository that will be accessible to SCAMIT members but not the general public.

Greg Lyon urged members to keep developing and sharing provisional taxa documentation at meetings, and to ensure this information is uploaded, and made available, in the Taxonomic Toolbox.

Wendy Enright passed along a message from the absent Secretary, Megan - she is in the long process of catching up on newsletters and wanted to remind everyone that she relies heavily on the note takers and the presenters, following up with her in order for her to assemble the newsletters.

Wendy's own update was to announce that the next Western Society of Malacologists meeting will be in Ensenada, Mexico, 14-19 June, 2020.

Many attendees passed with regards to any announcements or updates.

The next agenda item was to try to schedule out meetings for 2020. The goal is to move most meetings to OCSD since it is a central location for people coming from San Diego in the south and from Los Angeles in the north.

The meeting schedule developed as follows:

- January 6th, polychaete B'18 FIDs
- January 13th, arthropod B'18 FIDs
- February 24th, non-polychaete provisional species review
- March 9th, polychaete provisional species review
- April 6th, Bioblitz FIDs at NHMLAC
- May 11th, gastropods; more specifics TBD
- June 8th, crustacea toolbox review
- July, no meeting
- August 10th, echinoderm toolbox review
- September 14th, polychaete toolbox review
- October 19th, bivalves, lead Tony Phillips (possibly in Santa Barbara)
- November 9th, misc phyla; more specifics TBD
- December 14th, annual general membership meeting at SCCWRP

After scheduling out 2020, it was time for a Meeting Wrap Up. Kelvin called for Officer nominations from the floor. The current slate of officers was nominated and Leslie additionally nominated Brent Haggin for Secretary. Ballots will be sent out in February, with voting to conclude in March.

LITERATURE CITED

Hendler, Gordon. 1996. Class Ophiuroidea. Chapter 7. pp. 113-179. *IN*: Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and The Western Santa Barbara Channel. Blake, James A., Paul H. Scott, and Andrew Lissner (eds.). Santa Barbara Museum of Natural History. Santa Barbara, California, U.S.A. 305pp.

Please visit the SCAMIT Website at: www.scamit.org

SCAMIT OFFICERS

If you need any other information concerning SCAMIT please feel free to contact any of the officers at their e-mail addresses:

President	Kelvin Barwick	(714)593-7475	kbarwick@ocsd.com
Vice-President	Leslie Harris	(213)763-3234	lharris@nhm.org
Secretary	Megan Lilly	(619)758-2336	mlilly@sandiego.gov
Treasurer	Erin Oderlin	(310)648-5477	erin.oderlin@lacity.org

The SCAMIT newsletter is published every two months and is distributed freely to members in good standing. Membership is $20 for an electronic copy of the newsletter, available via the web site at www.scamit.org, and $35 to receive a printed copy via USPS. Institutional membership, which includes a mailed printed copy, is $65. All correspondences can be sent to the Secretary at the email address above or to:

SCAMIT
PO Box 50162
Long Beach, CA 90815

SOUTHERN CALIFORNIA ASSOCIATIONOF MARINE INVERTEBRATE TAXONOMISTS

January–February, 2020 SCAMIT Newsletter Vol. 38 No. 5

Photis sp HYP2, male, CLAEMD, Station B18-10385 (124 m), 17Jul18. Photo by C. Campbell

This Issue

13 JANUARY 2020, B'18 ARTHROPOD FIDS 2
27 JANUARY 2020, B'18 POLYCHAETE FIDS, OCSD 5
24 FEBRUARY 2020, B'18 (OR NOT) PROVISIONAL SPECIES REVIEW, OCSD 6
LITERATURE CITED 8
SCAMIT OFFICERS 9

The SCAMIT newsletter is not deemed to be a valid publication for formal taxonomic purposes

Publication Date: July 2020

13 JANUARY 2020, B'18 ARTHROPOD FIDS

Attendance: Ben Ferraro, Danny Tang, Kelvin Barwick (business meeting only), OCSD; Don Cadien, Chase McDonald, Terra Petry, Jovairia Loan, LACSD; JoAnne Linnenbrink, CLAEMD; Andrew Davenport, CSD; Dean Pasko, DCE.

UPCOMING MEETINGS

Visit the SCAMIT website at: www.scamit.org for the latest upcoming meetings announcements.

Kelvin started off the day briefly discussing upcoming SCAMIT meetings. Also mentioned were the upcoming SCUM (Southern California Unified Malacologists) and WSM (Western Society of Malacologists) meetings. Kelvin reminded attendees that nominations were still open for the upcoming SCAMIT election. A Species List Review Committee meeting is tentatively scheduled for March. In closing he asked everyone to make sure that each agency/company takes their own minutes regarding their FID resolutions, and send that information to the SCAMIT Secretary, Megan.

With the business meeting concluded, we began looking at FIDs.

OCSD

- *Leucon* sp L, FID – Ben had keyed it to this species but could not find a voucher. After group examination, it was identified as *Leucon declivis* Watling & McCann 1997. A species that is difficult to key unless it is male and Ben's was female. DCE and LACSD both said they had identified similar species to *L. declivis* in their own Bight samples.
- *Bruzelia tuberculata* G.O. Sars 1883, FID - After much debate, the group agreed on the suggested identification. The rostrum on Ben's specimen was not as downturned as the Sars 1895 plate reflects for *B. tuberculata*. However, OCSD had two vouchers that were identical. Don suspected that all three specimens might be a new North American species that shares characters with several European species. See Don's musings below.
- 3 small Cyclodorippidae, FID - determined to be 2 *Deilocerus planus* (Rathbun 1900) and 1 *Deilocerus decorus* (Rathbun 1933). The sheet used for these identifications is attached at the end of the NL.

CSD

- *Caprella kennerlyi* Stimpson 1864, FID – Confirmed. Two specimens were found in CSD Regional sampling stations at 17m and 300m. Don mentioned it was a more northern species and this was an unusual find.
- *Abyssorchomene abyssorum* (Stebbing, 1888), 851m, FID – This identification was arrived at by DCE but this species is not on the SCAMIT List and is not considered a SCB resident. Don took the specimen for further review and later determined that the ID should be left at Uristidae.
- *Bathlyberis* sp. vs *Bathylberis* nr *garthi* – a discussion ensued about protocol. These animals were examined and CSD identified them as *B.* nr *garthi*, whereas Dean would leave them at *Bathlyberis* sp. A future discussion regarding this discrepancy is needed.

Publication Date: July 2020

- *Photis lacia* J. L. Barnard 1962 - 56 females and 25 males were examined and discussed.
- *Photis brevipes* Shoemaker 1942 - 44 females and 13 males were examined and discussed.
- *Photis* spp, FID - 11 males with unusual G2 were examined. Dean kept two and gave them the tentative ID, *Photis* sp HYP2*.

CLAEMD

- B'18 10288, 136m, *Photis* sp HYP2*, FID - similar to *P. brevipes* but has a double palmar tooth, coxae have slight setae and antennae are not geniculate. CSD had brought similar photids. Consensus was for *Photis* sp HYP2*.
- B'18 10385, 134m, *Photis* sp HYP2*, FID - Male and female. These specimens are also similar to *P. brevipes* but coxae have slight setae and antennae are not geniculate. Consensus was for *Photis* sp HYP2*.
- B'18 10013, 25m, *Listriella* sp SD1, FID – wanted group input due to the size and shape of G2. Consensus was for *Listriella* sp SD1.

LACSD didn't have any FIDs to resolve.

Copied below is an email from Dean Pasko following up on the examined FID *Photis*.

> "Short follow-up to a discussion concerning some interesting *Photis* specimens that we reviewed at the January 13, 2020 SCAMIT meeting (Bight'18 arthropod FIDs).
>
> While working on some consulting samples from Goleta, CA, I ran across specimens of *Photis* sp B which caused me to review the *Photis* sp HYP2* (*sic*)(originally a tentative designation from a couple male specimens). At the meeting we were unsure if the two taxa were synonymous or not. I compared the two species more carefully. The attached is a 2-page set of photos which distinguish the two taxa by several gross characters, including:
>
> 1. Relative size
> 2. Shape of the eye lobe, and surrounding corneal lenses
> 3. Male gnathopod 1 coxa shape, basis width and shape, length of ventral margin of carpus
> 4. Male gnathopod 2 position of defining tooth, palmar gape between teeth near dactyl and defining tooth, as well as shape of teeth near dactylar hinge and defining tooth
>
> I hope the pictures clearly demonstrate all of the above for everyone. I did not have an opportunity to compare female specimens.
> *Photis* sp HYP2*(*sic*) may be (or somehow related to) *Photis viuda*, or some other invasive species. I've made no attempt to reconcile these questions because I wanted to get this out right away. Nor did I attempt to pull together a more exhaustive list of distinguishing characters. A more formal comparison will follow...hopefully before 2030!"
> - Dean Pasko, posted to the SCAMIT List Server 14 January 2020

{*foot note – at the meeting, and in previous communications, this unknown species was referred to as *Photis* sp HYP1, however, it was since discovered that J. Roney (CLAEMD, retired) had

Publication Date: July 2020

described a *Photis* sp HYP1 in 1986, and this was not the same animal. The name for this unknown *Photis* has since been changed to *Photis* sp HYP2 and is updated in this NL and in the attached voucher sheets; it is not considered a synonymy since there has been no formal publication to date}

Comments on examination of OCSD's "dexaminid" specimen on 13 Jan 2020, by D. Cadien
After initial examination pointed towards synopiids based on the overall shape, the telson, the gnathopods and the coxae, appropriate genus was the next concern. My initial examination turned up an "eye" although the specimen was thought eyeless. This was a small unpigmented glassy structure just above the insertion of the second antenna and not far below the midline of the head. Subsequent examination by others went back and forth, some seeing this, some not, and some seeing a dark structure in that position instead. So, we tried to key it both ways, although eyed synopiids are a small subset of the whole. The body was very robust and tapered strongly posteriorly (very like *Nicippe* in overall mass distribution). The gnathopods were very small, subchelate, and oblique. Coxae were expanded distally. Although I initially thought the telson deeply cleft because of how it showed ventrally in my initial exam, it later proved to be entire, not even terminally notched. This proved important to the final decision. Since the dorsal midline was toothed we were pointed towards *Bruzelia*. According to Cadien (2014) there are two species of the genus known from the NEP, *B. ascua* J.L. Barnard, 1966 and *B tuberculata*. *B. ascua* has very long spines dorsally so did not match at all. *B. tuberculata* was quite close, although differing in the structure of the rostrum, and in having thickenings at the end of the coxae, giving the animal a low lateral ridge, absent in the specimen at hand. After comparison with OCSD voucher material of *B. tuberculata* it was evident that the present specimen was the same as the vouchers, and the decision was made to adopt that ID for the B'18 material, which keys there regardless of key used. Reservations remain, however, particularly because of the nearly horizontal rostrum, not downturned as in *B. tuberculata* or most synopiids for that matter. The head, in consequence, had more the appearance of an oedicerotid than of the shield-head of synopiids. While checking the literature on the genus we consulted Lörz and Coleman 2013, which reviews the genus world-wide. The first sentence of their generic diagnosis was rather telling: "Head not protuberant, except in type species". The type species, *Bruzelia typica* Boeck 1871, is well illustrated in Sars 1895, on the same plate with *B. tuberculata*, and shows a nearly horizontal rostrum, similar to that in the B'18 specimen examined. However, other details of that species do not match at all. This suggests to me that 1. The degree of deflection of the rostrum is, as also in oedicerotids, a significant character; and 2. Specimens identified as *B. tuberculata* locally are likely to be an as yet unrecognized NEP endemic rather than a circumboreal occurrence of a northern European species. For the moment though, the default ID will remain *B. tuberculata* Sars, 1883. Gurjanova (1951) reported both *B. typica* and *B tuberculata* from the boreal NWP and illustrated both with downturned rostra. Barnard (1972) also shows specimens identified as *B. typica* as bearing a downturned rostrum without commenting that this differs from Sars 1895. There seems to be an issue here.
As a side comment, while using Barnard 1972 a defect in the key to genera of synopiids was found. Couplet six leads only to couplet 8. The first half of the couplet should be corrected to lead to couplet 7 instead.

One last arthropod note - while not discussed in the minutes, readers will find a voucher sheet for *Photis* sp SD10, Pasko 2020, attached at the end of this newsletter .

27 JANUARY 2020, B'18 POLYCHAETE FIDS, OCSD

Attendance: Kelvin Barwick, Rob Gamber, Ernie Ruckman, OCSD; Ricardo Martinez, Veronica Rodriguez, Maiko Kasuya, Adam Webb, CSD; Erin Oderlin, Jennifer Smolenski, Greg Lyon, CLAEMD; Bill Furlong, Brent Haggin, Christine Boren, LACSD; Larry Lovell, Tony Phillips, DCE; Leslie Harris, NHMLAC; Miguel A. Meca, University of Bergen, Norway

The meeting began with a reminder from Kelvin of upcoming SCAMIT officer elections. Ballots will be mailed in February. The next two SCAMIT meetings will be: Feb 24 - Non-Polychaete Provisional species at OCSD, and Mar 9 - Polychaete Provisional species at OCSD.

With that we moved on to look at FID polychaete specimens.

CLAEMD

- Ampharetidae - 585m - *Eclysippe trilobata* (Hartman 1969)
- Spionidae - 5m - *Polydora* sp.
- Spionidae - 18m - *Dipolydora* sp. (anterior fragments)
- *Ninoe* - 86m - *Ninoe* sp. (juv) - per L. Harris, <10mm - juvenile, take to *Ninoe* sp.
- Polynoidae - 585m - *Eucranta* sp.
- Phyllodocidae - 130m - *Eulalia* sp.
- Paraonidae - 80m - Paraonidae??
- Syllidae - 165m - *Syllis hyperioni* Dorsey & Phillips 1987
- Sabellidae & Terebellidae – juv specimens ultimately left at Family

OCSD

- Orbiniidae - *Leitoscoloplos* sp LA3
- Onuphidae - 680m - to Leslie for additional review
- Ampharetidae - Ampharetidae (fragments)
- Spionidae - *Spiophanes wigleyi* (juv) Pettibone 1962

DCE

- *Pista* - B'18-10338, 259m - *Pista wui* Saphronova 1988
- Syllidae - 3.1m - Autolytinae
- Syllidae - to Leslie for additional review

LACSD

- Cirratulidae - 305m - Cirratulidae (regenerating)

Publication Date: July 2020

24 FEBRUARY 2020, B'18 (or not) PROVISIONAL SPECIES REVIEW, OCSD

Attendance: Kelvin Barwick, OCSD; Don Cadien, Jovairia Loan, Terra Petry, Chase McDonald, LACSD; Greg Lyon, Jennifer Smolenski, Craig Campbell, CLAEMD; Wendy Enright, Megan Lilly, CSD; Tony Phillips, DCE.

The business portion began with upcoming meetings announcements. During mention of the upcoming SLRC meeting on April 13th, Kelvin segued into a discussion of the SCAMIT Database project. He had met with Dean Pentcheff and Wai-yin Kwan and found it to be very helpful. Wai-yin is willing to help us develop a proposal for the project, as that is the first hurdle. He will make a full report at the next SLRC meeting. Kelvin reminded everyone that SCAMIT officer elections are currently in progress and he jokingly encouraged members to "vote early and vote often."

We then turned to pondering the purpose of today's meeting. It was listed as a B'18 provisional species review but not many provisional species had been submitted for consideration. We decided to make it a meeting addressing provisional species "in general" with the primary focus being on B'18 submissions but moving to other pending provisionals, time permitting.

Craig Campbell suggested a new protocol for dealing with provisional species: Start by using Cody Larsen's recently developed provisional species submittal site as a holding place for species needing review. Then, adding an agenda item to SCAMIT meetings where at the beginning of each meeting (after the business announcements but before the main topic) attendees would review one or two pending provisional species of phyla relevant to the day's meeting. This would allow us to begin tackling the backlog of provisional species. It would also, hopefully, keep a new backlog from forming. We will need to discuss rules and approaches, for instance, should there be a time limit, and how many species should be reviewed per meeting? Also we would need to reach out to the author(s) ahead of time, allowing them to decide if they will be prepared to discuss the species at the meeting, or if they would like to "take a pass" and we can move down the list. This concept would mean that Cody's site would be the repository for all agency provisional species, not just those created during Bight'18. We feel this is one instance where a password protected area is needed so pending provisional species aren't stumbled upon and used incorrectly and/or inconsistently. All of this will be addressed at the next SLRC meeting and the aim will be to codify and clarify our vision.

First animal of the day to be discussed was a large Heteronemertea that Cody had named Heteronemertea sp HYP3. Megan thought it looked similar to some large Heteronemertea specimens she had seen from one of CSDs monitoring stations (Sta. B8, 89m, July, 2016). She will go back and pull the specimens and compare them to Cody's sheet. The voucher sheet is attached at the end of this newsletter.

Cody's Lineidae sp HYP3 was discussed next. The sheet was approved with just a few minor edits needed. It was suggested that Cody revisit the idea of a CSO at the proximal end of the cephalic groove. That would be an unusual feature and it was suggested that the structure was perhaps not a true CSO. (For the initial publication of this voucher sheet, see Vol 38 no 3).

Photis sp HYP1, FID, by Craig Campbell was considered, and it was concluded that it should be *Photis* sp HYP2, since it is not the same as sp HYP1 Roney 1986. It was the same species as discussed during January's arthropod meeting. This animal was sampled from east Santa Barbara channel/ Channel Islands. With this suggested name change as a caveat, the sheet was conditionally approved. Craig will work on it further and reach out to Dean Pasko, as he wants to do more compare/contrast

with other species. He has since done so and the voucher sheet is attached at the end of this NL.

Speaking of provisional species, it was noted that a meeting to specifically address the state of *Turbonilla* provisionals and *Turbonilla* problems, is needed. Don felt that at that time a review of character states should be undertaken as well.

Jennifer Smolenski presented her sheet on Pennatulacea sp HYP1. It was approved with the suggestion to add photos/description of the sclerites.

Greg Lyon then brought up one of the topics for the day, Mangellidae troubles and the confounding problems surrounding *Propebela* spp. The central question being, are the two forms being reported new species, or are their published names already available? Earlier Greg had discovered species from Jim McLean's original negatives (for a discussion of Jim McClean's image files and their availability to SCAMIT members see, SCAMIT NL Vol 38 no 3), that closely resembled the SCAMIT forms. Greg stated that the two forms differ in that one has spiral sculpture of broadly but evenly spaced cords, present on the shoulder above the carina and continuous from suture to base of body whorl (Fig 1). The other form has reduced or absent spiral

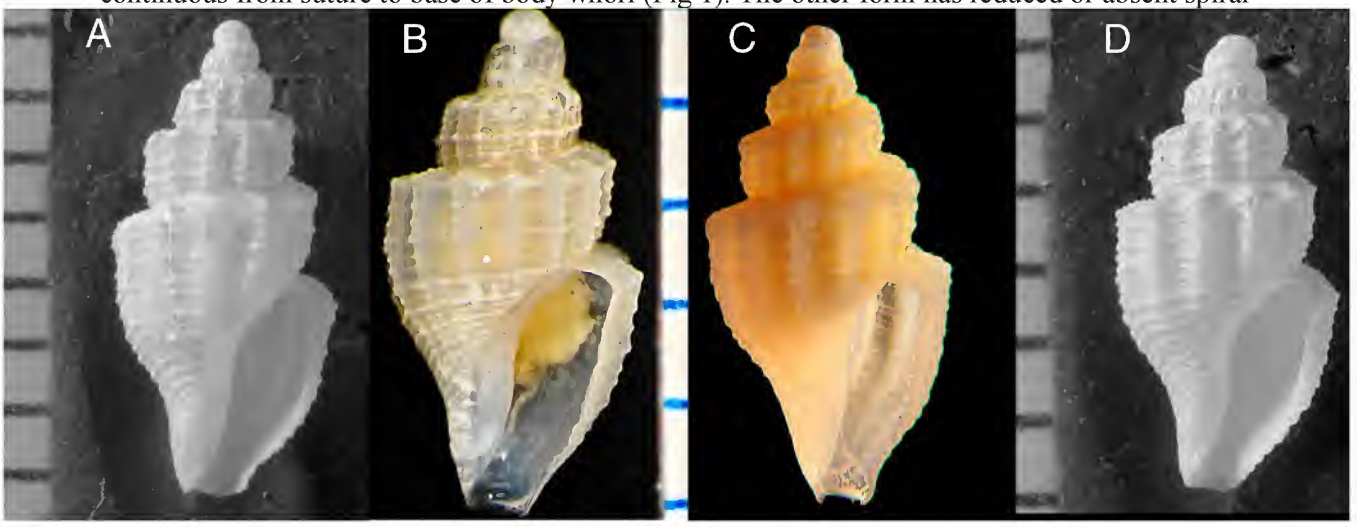


Figure 1 - A. Negative #486-22; J. McLean unpublished. B. B13-9329?, 95 m?, Channel Islands; T. Phillips. C. B'03-4255, 207 m; M. Lilly. D. Negative #486-27; J. Mclean unpublished. (All tic marks = 1 mm)

sculpture on the shoulder above the carina and raised spiral cords broadly and irregularly spaced below the carina to base of body whorl (Fig. 2). In his presentation, Greg compared these images with the two forms reported by various SCAMIT members. Unfortunately, no name references could be found in Jim's notebook scans. In the hope of finding more information, Kelvin undertook a trip to the Department of Malacology at NHMLAC. There, he hoped to look through Jim McLean's (Former Curator now deceased) notebooks for clues but didn't find anything. Lindsey Groves (Collections Manager) graciously provided him with a PDF copy of Jim's long gestating but never published MS for the Shelled Benthic Gastropoda of the Northeastern Pacific (British Columbia to central Baja California). It was provided with the stipulation that any new names proposed therein could not be published. Kelvin soon found illustrations of what had been proposed as new species in the MS that fit the two forms from Jim's negatives discovered by Greg. Additionally, Kelvin was able to look at the material examined including the types designated in the MS. These efforts confirmed Greg's earlier suspicions that there were two undescribed species. Greg and Kelvin agreed to work together to produce provisional voucher sheets for the two morphs.

Publication Date: July 2020

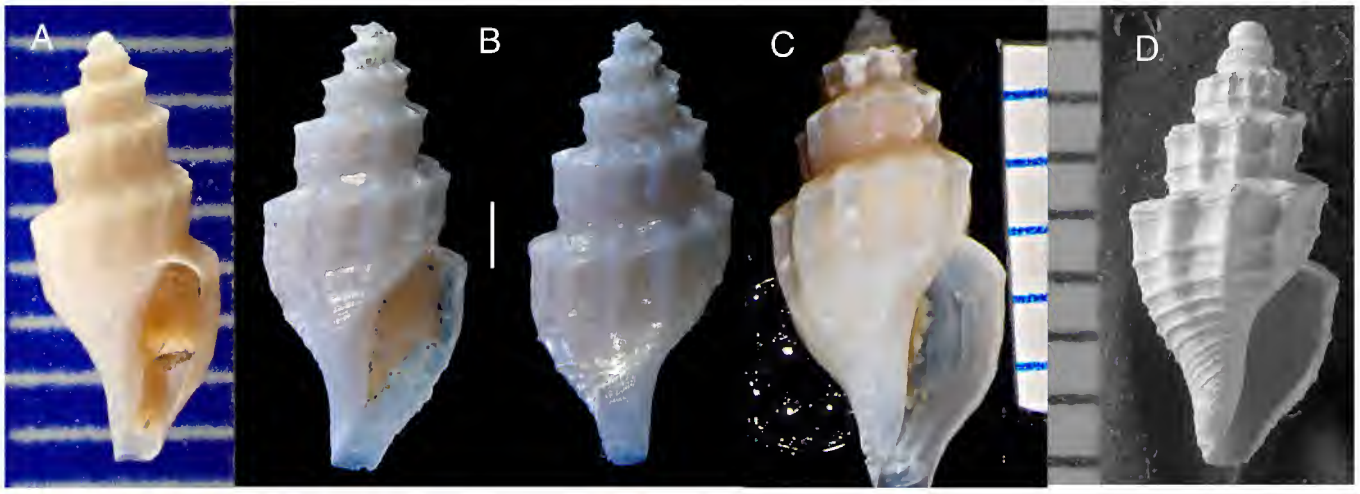


Figure 2 - A. B'18-10385, ~125 m, Channel Islands; G. Lyon. B. B'18-10300, 196 m, Eastern Santa Barbara Channel; K. Barwick (ventral and dorsal view, respectively). C. B'03-4067, 135 m, Point Conception; T. Phillips. D. Negative #486-24; J. McLean unpublished photo. (all tick marks and scale bars = 1 mm)

Tony and Don felt that there is a possible 3rd type collected at the Channel Islands during the B'13 survey. They would follow up and report later.

Next was a discussion regarding *Terebra* spp. Pat LaFolette had posted on the SCAMIT List Server (22 October 2019) a 3rd potential species that could be sampled in the SCB, *T. crenifera* (which according to WoRMS should be *Neoterebra crenifera* (Deshayes, 1859)). This species is not normally seen north of the gulf of California, but dead specimens have been found in the SCB. This issue will hopefully be addressed at the May SCAMIT meeting. A *Terebra* page was found in McClean's unpublished MS but Kelvin recommends that people stick with Bratcher and Cernohorsky, 1987 which contains photos of type specimens.

LITERATURE CITED

Barnard, J. L. (1972). A review of the family Synopiidae (=Tironidae), mainly distributed in the deep sea (Crustacea: Amphipoda). Smithsonian Contributions to Zoology (124): 1-94.

Bratcher, Twyla and W. Cernohorsky.1987. Living Terebras of the World: A Monograph of the Recent Terebridae of the World. American Malacologists; 1st Edition. 240 pp.

Cadien, D. B. (2014) Amphipoda of the Northeast Pacific (Equator to Aleutians, intertidal to abyss): XVII. Synopioidea - a review. 20pp.

Gurjanova, E. F. (1951). Bokoplavy morey SSSR i sopredel'nykh vod (Amphipoda-Gammaridea). Opredeliteli po Faune SSSR **41**: 1-1029.

Lörz, A.-N. and C. O. Coleman (2013). The Marine Fauna of New Zealand and the Ross Sea: Amphipoda, Synopiidae (Crustacea). NIWA. Biodiversity Memoir (127): 1-160.

Sars, G. O. (1895). Amphipoda. An account of the Crustacea of Norway, with short descriptions and figures of all the species **1**: 1-711.

Please visit the SCAMIT Website at: www.scamit.org

SCAMIT OFFICERS

If you need any other information concerning SCAMIT please feel free to contact any of the officers at their e-mail addresses:

President	Kelvin Barwick	(714)593-7475	kbarwick@ocsd.com
Vice-President	Leslie Harris	(213)763-3234	lharris@nhm.org
Secretary	Megan Lilly	(619)758-2336	mlilly@sandiego.gov
Treasurer	Erin Oderlin	(310)648-5477	erin.oderlin@lacity.org

The SCAMIT newsletter is published every two months and is distributed freely to members in good standing. Membership is $20 for an electronic copy of the newsletter, available via the web site at www.scamit.org, and $35 to receive a printed copy via USPS. Institutional membership, which includes a mailed printed copy, is $65. All correspondences can be sent to the Secretary at the email address above or to:

SCAMIT
PO Box 50162
Long Beach, CA 90815

CITY OF LOS ANGELES VOUCHER SHEET

Photis sp HYP2

SCAMIT Vol. 38, No 5

Group: Arthropoda:Malacostraca:Amphipoda:Photidae

SCAMIT CODE: None

SYNONYMY: None

Date Examined: 20FEB20

Voucher By: C. Campbell

DIAGNOSTIC CHARACTERS:

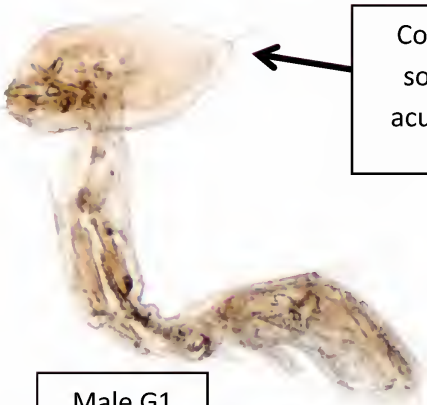
1. Both male and female have distinct gnathopod 2. Female G2 with blunt defining tooth and flat palm. Male G2 with defining tooth and multiple palmar teeth. Bifid palmer tooth closest to dactyl hinge is blunt.
2. Circular pattern of larger corneal lenses surrounding pigmented eye on both male and female.
3. Coxa 1 and 2 with very few setae. Female coxa 1 and 2 ventrally squared. Anterior corner of male coxa 1 and 2 somewhat pointed.
4. Ventral margin of G1 carpus broad on male and female.
5. The four specimens observed ranged from 3-7 mm, all mature.

MALE:

Photis sp HYP2

CLAEMD, Station B18-10385 (124 m), 17Jul18

Coxa 1 with somewhat acute corner



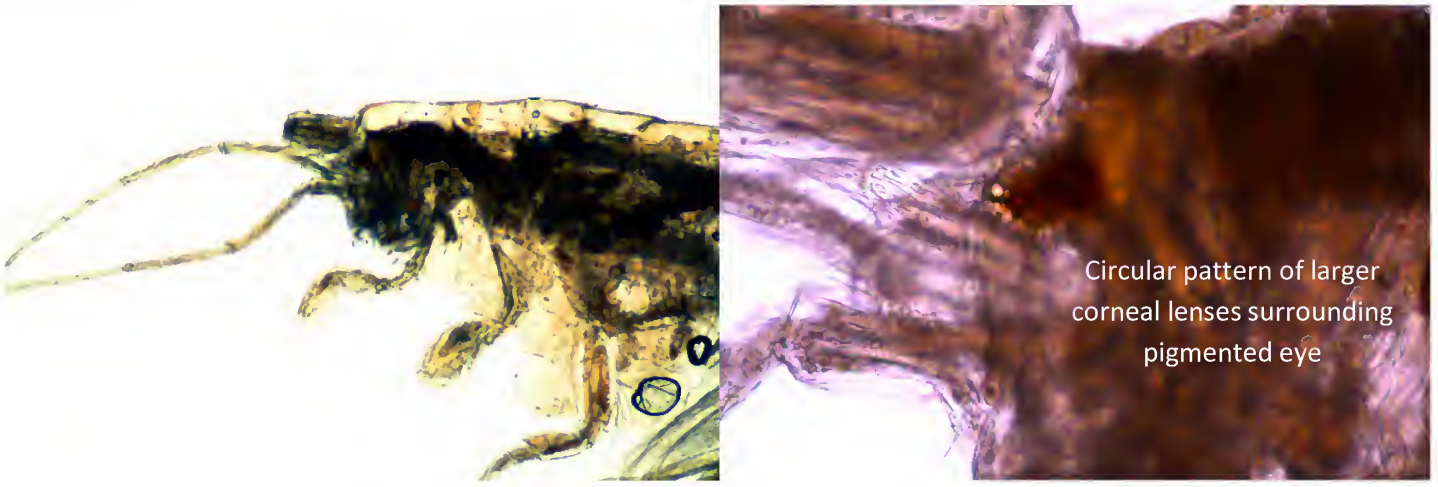
Male G1

Male G2

Male G2 distinct. Bifid teeth near dactyl hinge blunt

Photis sp HYP2
CLAEMD, Station B18-10385 (124 m), 17Jul18

FEMALE:



Photis sp HYP2
CLAEMD, Station B18-10385 (124 m), 17Jul18

SPECIMEN COLLECTION(S):

- EXAMPLE: CLAEMD, Station B18-10385 (124 m), 17Jul18, 34.0788, -119.509, about 5 km from east end of Santa Rosa Island.
- Also collected at station B18-10288

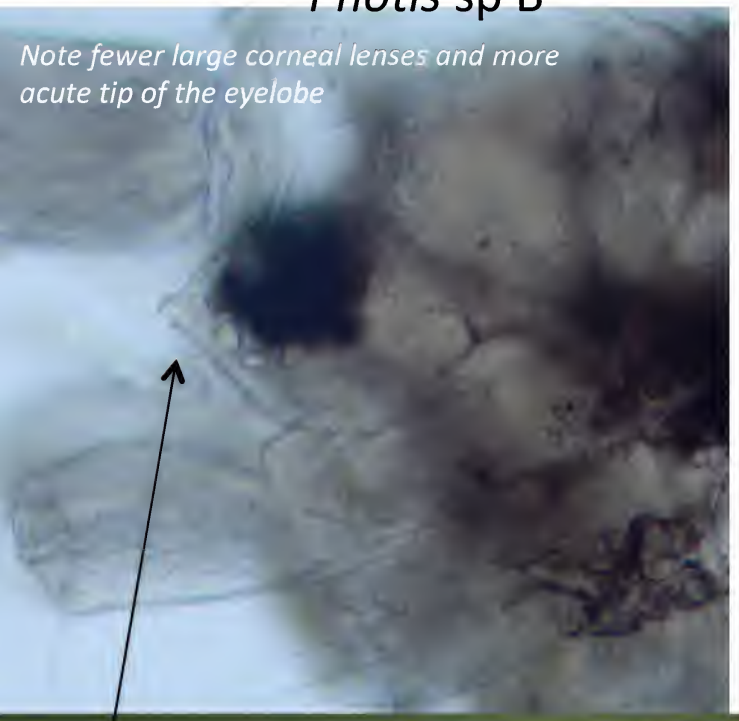
RELATED SPECIES AND CHARACTER DIFFERENCES:

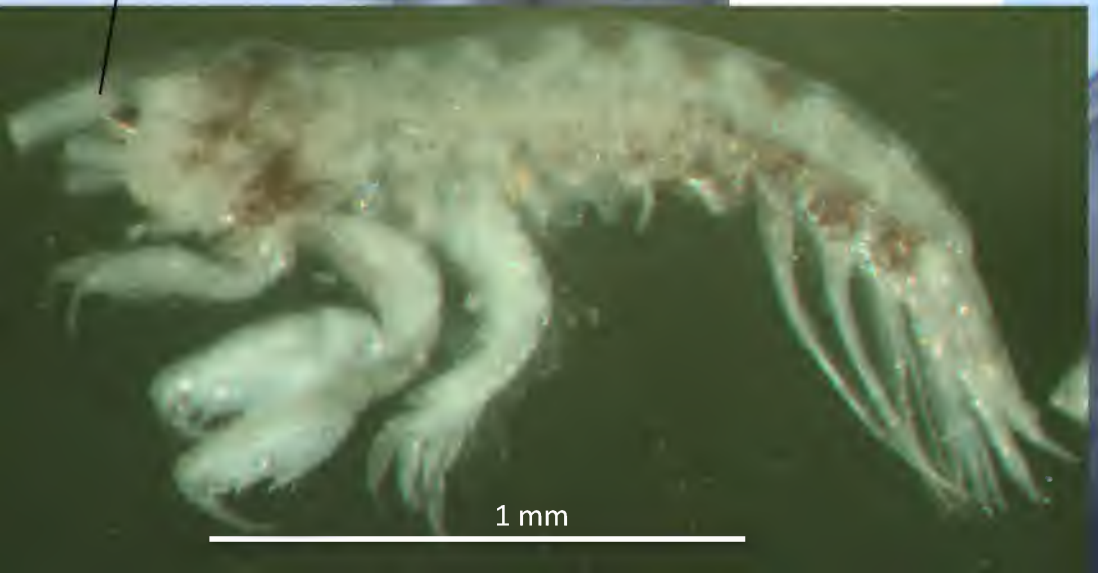
- Female G2 is similar to *Photis brevipes* which has a more sinuous palm and an acute defining tooth. *P. brevipes* also have heavily setose coxae (20 or more on ventral margin of coxa 2). *P.* sp HYP2 coxa have only a few setae.
- Gnathopods are very similar to *P. macrotica*. Both have very few setae on coxa 1 and 2 and coxa shape is very similar in both species, but eye is much larger in *P. macrotica*.
- *Photis* sp HYP2 has a triangular eyelobe and large corneal lenses forming an outer ring around eye. *Photis* sp B has a more acute triangular eye lobe and fewer corneal lenses. Male *P.* sp B lacks the bifid tooth on G2 palm near dactyl hinge.

***Photis* sp B** (Goleta, CA 25m) vs.
***Photis* sp Hyp2** (B'18 10293, East Santa Barbara Channel, 127 m)

Photis sp B

Photis sp Hyp2 (D. Pasko, 2020)



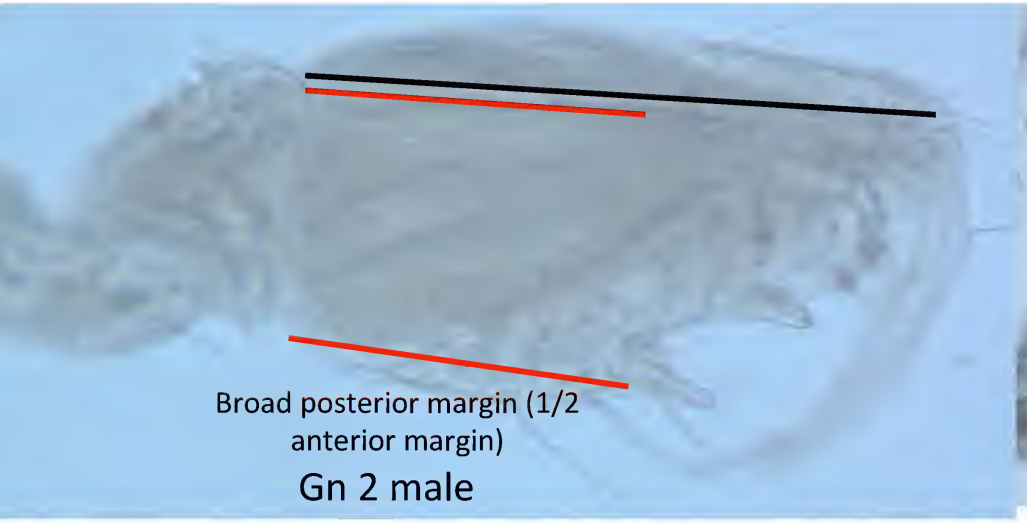


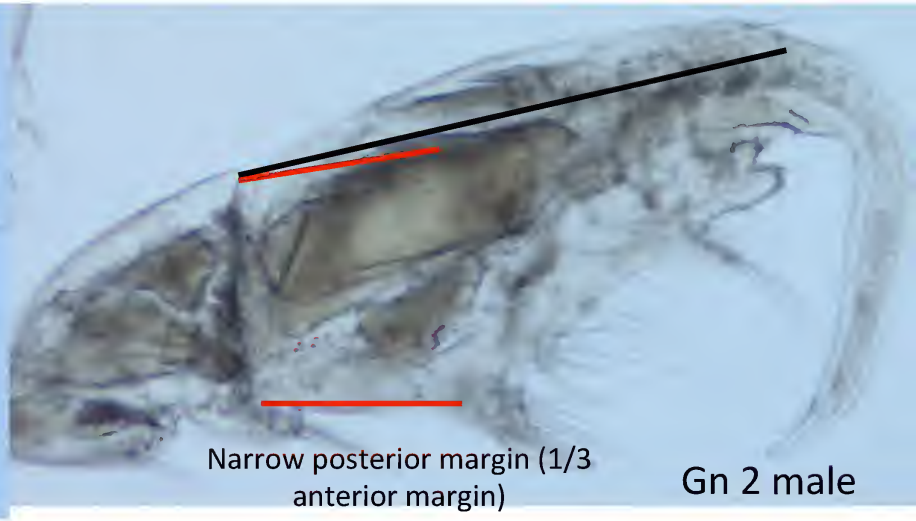
***Photis* sp B** (Goleta, CA 25m) vs.
***Photis* sp Hyp2** (B'18 10293, East Santa Barbara Channel, 127 m)

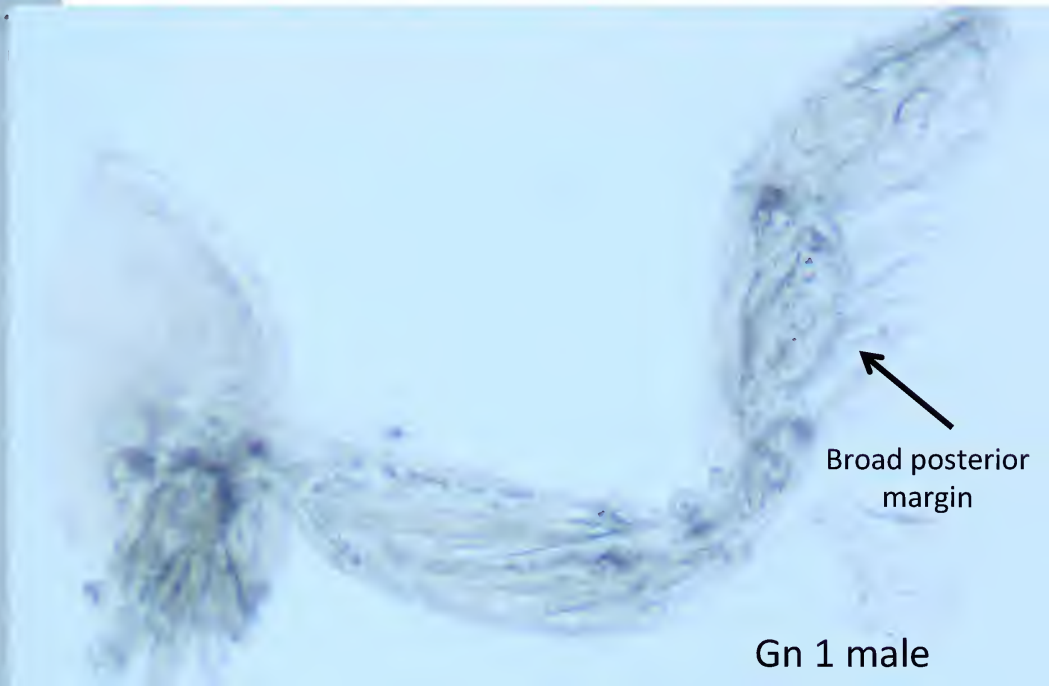
Photis sp B

Photis sp Hyp2

(D. Pasko, 2020)







Provisional Name: Photis sp SD10
Authority: Pasko
Common Synonyms:

Taxon: Amphipod: Isaeidae **Taxonomist:** Dean Pasko
Date: 2020
Specimen(s): **Station Date Depth (ft/m) #spms storage location**
2685 (1), 28 July 99, 398 ft, 1 spm, DP: ITP-99 FID #1
B11 (1), 01-Feb-2019

Characters:

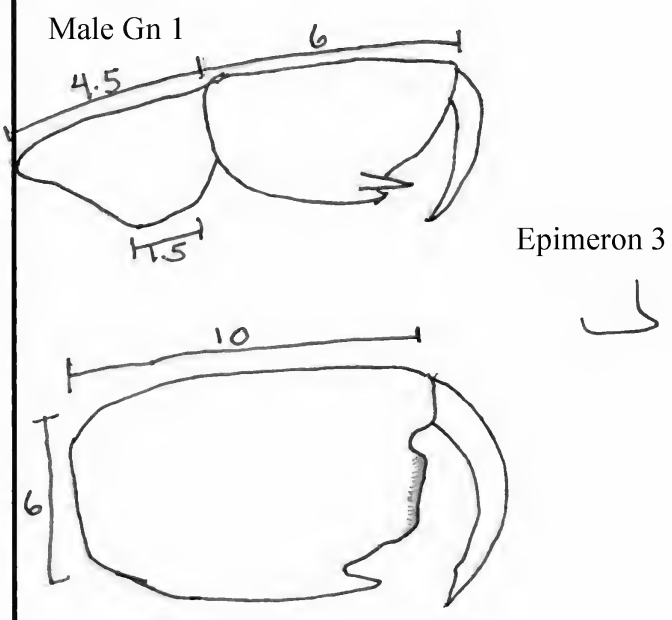
Male specimen (2.5 mm)

- Articles of antennae long, few in number (A1 flagellum with 4 articles; A2 with 5), sparsely setose
- Eye normally sized; eye lobe sub-acute
- Gnathopod 1 palm oblique with small defining tooth and large mesial spine; article 5 slightly shorter than article 6, posterior margin short (approx. 1/3 of anterior margin); basis unproduced antero-distally.
- Gnathopod 2 article 6 elongate (approx. 1.75 as long as broad) with oblique palm; palmar tooth large, strongly produced, squared and slightly emarginate; dactyl strongly overlapping palm; article 2 without stridulation ridge.
- Coxae 2-5 elongate, narrow, with 10-15 marginal setae
- Body coloration patchy.

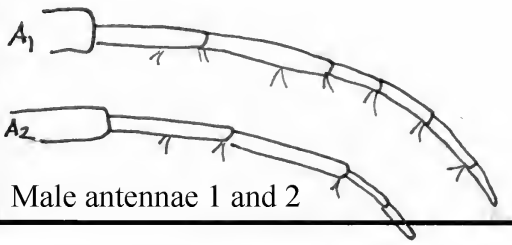
Female specimen (2.25 mm) – see page 2

- Eye normally sized; eye lobe sub-acute
- Gnathopod 1 palm oblique, flat to slightly convex; article 5 subequal to article 6, posterior margin broad (approx. 4/5th anterior margin); basis unproduced antero-distally, with row of 5-8 short, evenly distributed setae.
- Gnathopod 2 oblique, article 6 elongate (approx. twice as long as broad) convex to very slightly sinuous palm; basis unproduced antero-distally, with row of 5-8 short, evenly distributed setae.
- Coxae 2-5 elongate, narrow, with 10-15 marginal setae.

Illustrations:



Male Gn 2



Male antennae 1 and 2

Related Species & Other Comments:

This species, represented by a single male specimen, differs from all other species of *Photis* reported from the southern California Bight in the possession of a defining tooth on gnathopod 1. *Photis* sp SD10 closely resembles *Photis macinerneyi* in the elongate nature of gnathopod 2, article 6, but differs in the larger and more squared and emarginate palmar tooth, and the more oblique nature of the palm (i.e., the defining tooth does not extend out to a distance level with the dactylar hinge). It is also similar to *Photis lacia* but differs in having gnathopod 1, article 5 shorter than article 6 with a posterior margin is only 1/3 the anterior margin, gnathopod 2 with a much stronger, more emarginate palmar tooth, and in the absence of a stridulating ridge on gnathopod 2, article 2.

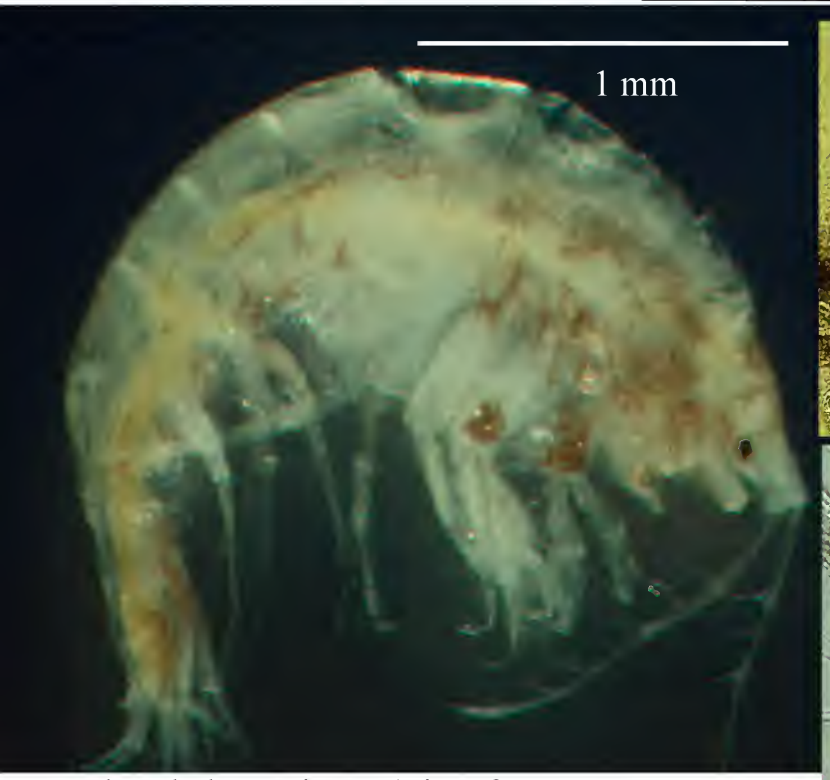
This specimen may represent a juvenile or immature specimen, however, the presence of a process defining the palm of gnathopod 1 makes this specimen unique enough to call it out as something to look for.

References:

Barnard, J.L. 1962. Pacific Naturalist, 3. 1-72.
Conlan, K. 1983. Publications in Natural Sciences, No. 4. 1-75.

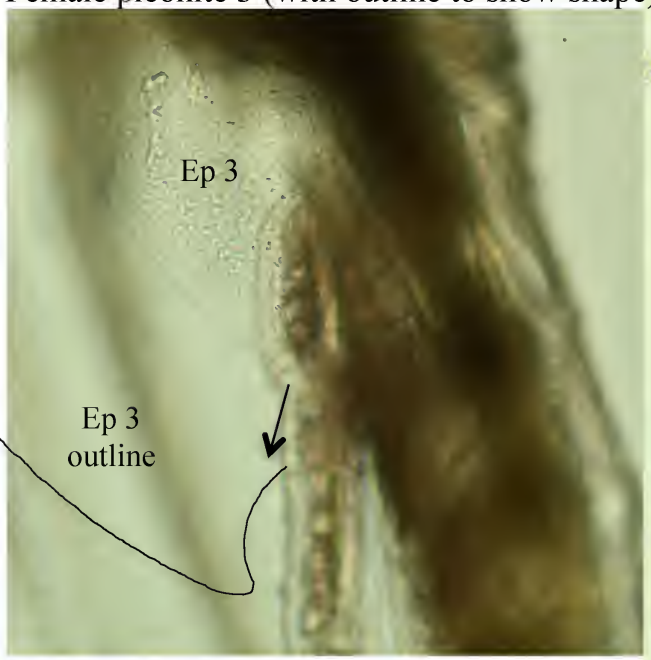
Provisional Name: Photis sp SD10
Authority: Pasko
Common Synonyms:

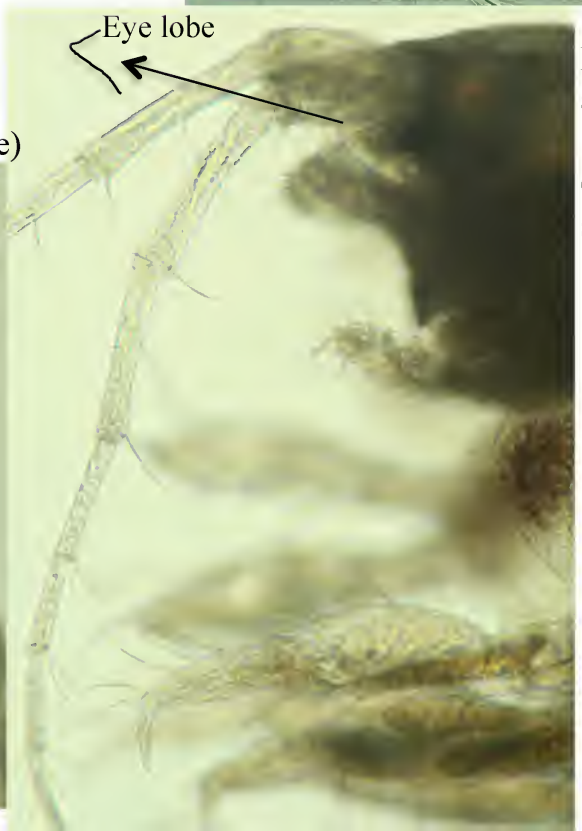
Taxon: Amphipod: Isaeidae **Taxonomist:** Dean Pasko
Date: 2020
Specimen(s): **Station Date Depth (ft/m) #spms storage location**
2685 (1), 28 July 99, 398 ft, 1 spm, DP: ITP-99 FID #1
B11 (1), 01-Feb-2019



Female, whole specimen. (City of San Diego Station B11, 01-Feb-2019

Female pleonite 3 (with outline to show shape)



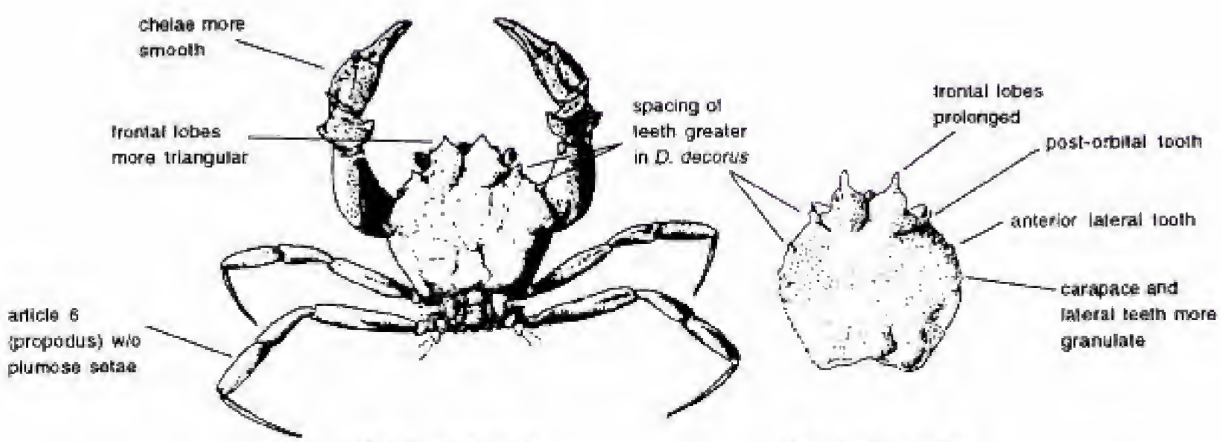


Female head, antennae, eye lobe (outlined to show shape)

Decapod Resources

Deilocerus spp
dp 2/16/96

Deilocerus planus & D. decorus


chelae more smooth
frontal lobes more triangular
spacing of teeth greater in *D. decorus*
article 6 (propodus) w/o plumose setae
frontal lobes prolonged
post-orbital tooth
anterior lateral tooth
carapace and lateral teeth more granulate

Deilocerus planus

Carapace and chelae less granulate

Article 6 of pereopods w/o plumose setae

Frontal lobes triangular

Anterior lateral carapace tooth closer to post-orbital tooth

Deilocerus decorus

Carapace and chelae more granulate

Article 6 of pereopods with plumose setae

Frontal lobes prolonged

Anterior lateral carapace tooth more distant from post-orbital tooth

CITY OF LOS ANGELES VOUCHER SHEET

Heteronemertea sp HYP3 SCAMIT Vol. 38 No 5

Group: Nemertea: Anopla: Heteronemertea

SCAMIT CODE: None

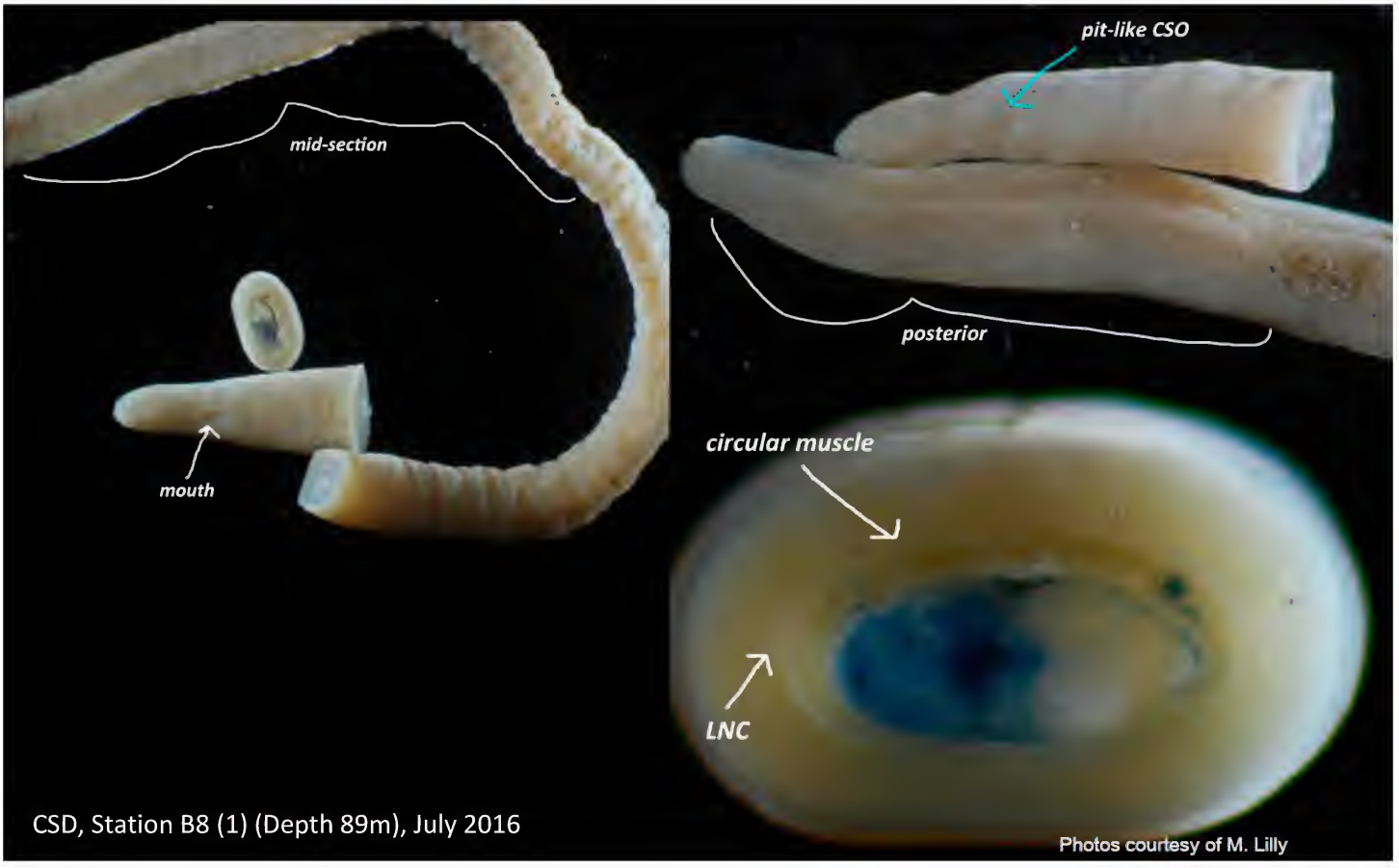
SYNONYMY: None

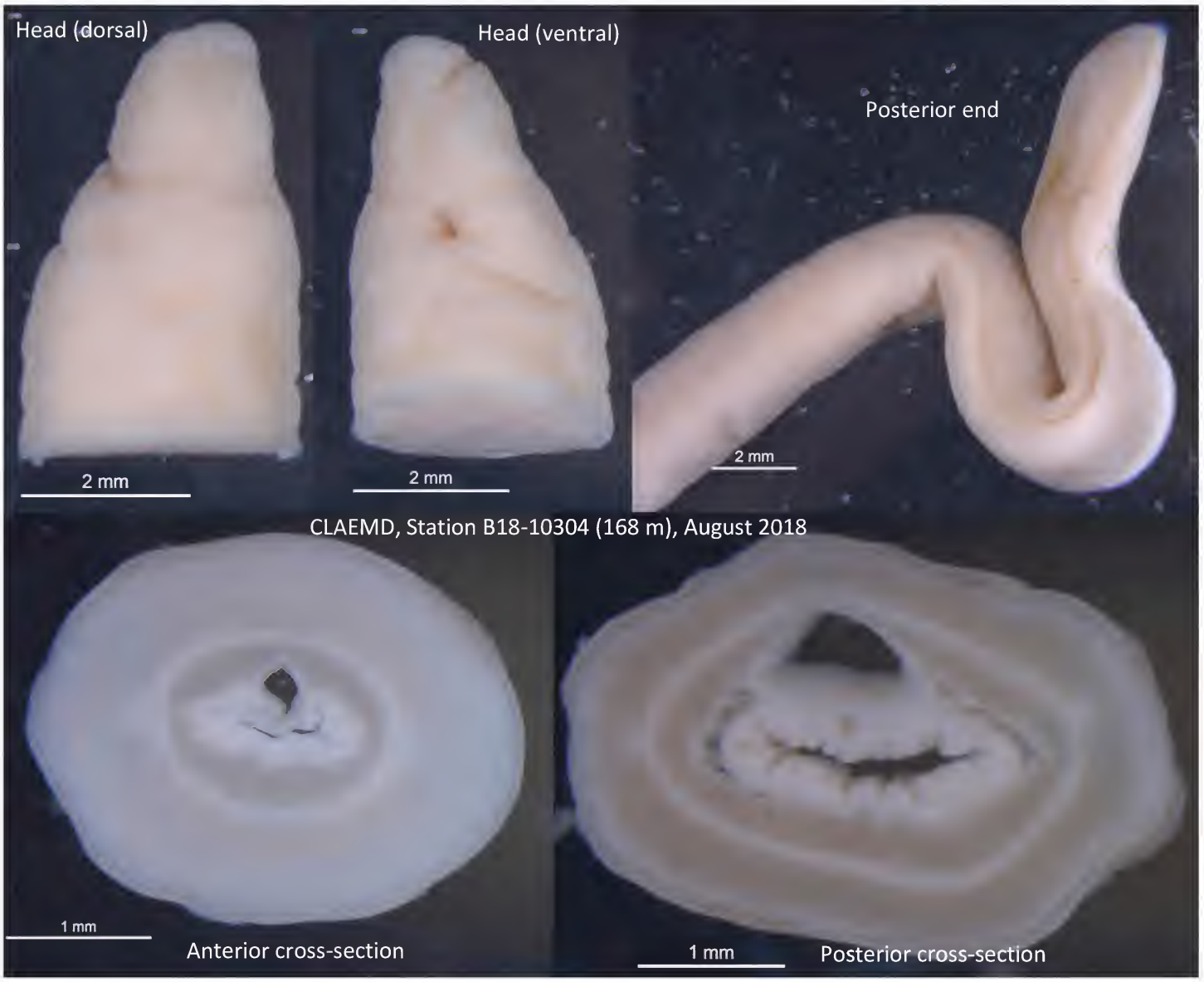
Date Examined: October 3, 2019

Voucher By: Cody Larsen & Megan Lilly

DIAGNOSTIC CHARACTERS:

1. Head without horizontal cephalic slit.
2. Distinctive body color pattern absent; uniform beige coloration.
3. Small, pit-like cerebral sensory organ (CSO).
4. Three-layered Heteronemertean musculature, with thick, dense outer longitudinal muscle layer.
5. Body flattens from mid-section to posterior end, exhibiting lateral margins.
6. Small-to-moderate sized muscular mouth, with minor ribbing.





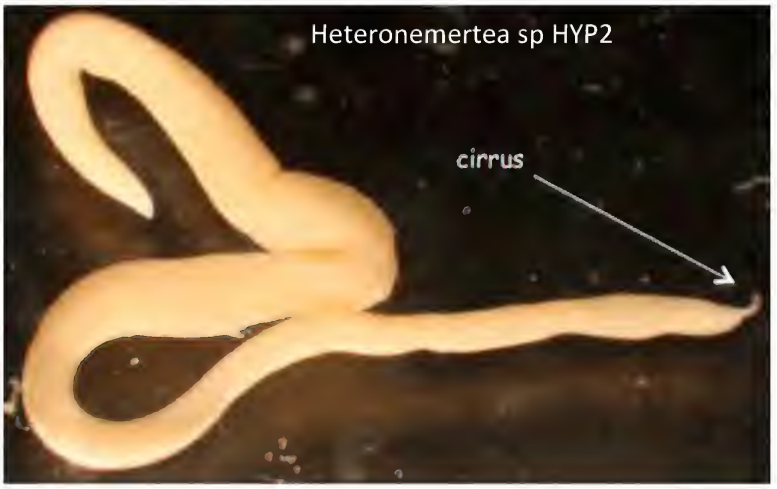
SPECIMEN COLLECTION(S):

- CLAEMD, Station B18-10304 (168 m), August 2018
- CSD, Station B8 (1) (Depth 89m), July 2016

RELATED SPECIES AND CHARACTER DIFFERENCES:

Heteronemertea sp HYP2

- Entire animal generally rounded, with a smooth body.
- Absence of tapered margins in posterior half.
- Head strongly tapered, with anterior half of body broader than posterior region.
- Thick dermis (although, also has thick longitudinal muscle layers).



SOUTHERN CALIFORNIA ASSOCIATIONOF MARINE INVERTEBRATE TAXONOMISTS

March–April, 2020 SCAMIT Newsletter Vol. 38 No. 6

This Issue

9 MARCH 2020, BIGHT'18 POLYCHAETE PROVISIONAL SPECIES, OCSD 2
APRIL 2020 – MEETING CANCELED DUE TO COVID 19 5
LITERATURE CITED 5
SCAMIT OFFICERS 6

The SCAMIT newsletter is not deemed to be a valid publication for formal taxonomic purposes

Publication Date: October 2020

9 MARCH 2020, BIGHT'18 POLYCHAETE PROVISIONAL SPECIES, OCSD

Attendance: Kelvin Barwick, Ben Ferraro, Ernie Ruckman, Rob Gamber (OCSD); Ricardo Martinez, Veronica Rodriguez, Maiko Kasuya, Adam Webb (CSD); Bill Furlong, Brent Haggin, Norbert Lee, Christine Boren (LACSD); Jennifer Smolenski, Greg Lyon, Erin Oderlin (CLAEMD); Larry Lovell, Tony Phillips (DCE); Leslie Harris (NHMLAC); Angelica Zavala Lopez (MTS).

UPCOMING MEETINGS

Visit the SCAMIT website at: www.scamit.org for the latest upcoming meetings announcements.

Kelvin opened the day with upcoming meeting announcements:

- April 6 - NHMLAC - DISCO ID's - All Phyla – lead by L. Harris (cancelled due to COVID)
- April 13 - OCSD - Species List Review Committee - K. Barwick (cancelled due to COVID)
- May 11 - OCSD - Troublesome Gastropods - W. Enright & M. Lilly (cancelled due to COVID)

With that we moved on to the topic of the day, in-house polychaete provisional species listings. Kelvin started by discussing the provisional species website developed by Cody Larsen (CLAEMD). We reviewed the steps for formalizing the process.

- Use the site as a repository for voucher sheets
- The site should be the starting point for vetting in-house provisional species and elevating to SCAMIT provisional species; thus moving species off the Hold-List
- Review the site for future meeting discussions to make progress on provisional listings and move the provisional species down the review line

Kelvin will talk to Dean Pentcheff about integration of future sheets to the SCAMIT website.

The meeting started with Jennifer Smolenski (CLAEMD) asking for further clarification on Leslie's provisional species Euclymeninae sp A and Euclymeninae sp B (Family Maldanidae). Leslie specified that the stain pattern on setiger 7 is the stable character that can be used to distinguish between the two species. Euclymeninae sp A has a stain band on setiger 7 that goes all the way around the animal, versus Euclymeninae sp B which has a set of rectangular stain patches on the ventrum of setiger 7.

We then moved on to reviewing Bight '18 Polychaete Provisionals, starting with Brent Haggin (LACSD):

- *Aphelochaeta* sp LA2 Haggin 2019 §, Family Cirratulidae - 75m off Santa Cruz Island. This species was originally described by C. Brantley from the Bight '98 survey and placed on the hold list. Brent found the original sample and created the voucher sheet
- *Aphelochaeta* sp LA4 Haggin 2019 §, Family Cirratulidae - 548m in San Pedro Channel off the west end of Catalina Island
- *Aphelochaeta* sp LA5 Haggin 2019 §, Family Cirratulidae - 548m in San Pedro Channel off the west end of Catalina Island

Publication Date: October 2020

- *Chaetozone* sp LA2 Haggin 2019 §, Family Cirratulidae - 818m in Santa Monica Basin
- *Kirkegaardia* sp LA1 Haggin 2019 §, Family Cirratulidae - 738m to 883m in San Pedro Channel and Santa Monica Basin
- *Cossura* sp LA1 Haggin 2019 §, Family Cossuridae - 745m in San Pedro Channel
- *Jasmineira* sp LA1 Haggin 2019 §, Family Sabellinae - 548m in San Pedro Channel off the west end of Catalina Island
- *Lepidonotus* sp LA1 Haggin 2019 §, Family Polynoidae - 745m in San Pedro Channel
- *Syllis* sp LA4 Haggin 2019 §, Family Syllidae - 745m in San Pedro Channel
- *Phyllochaetopterus* sp LA1 Haggin 2019 §, Family Chaetopteridae - 818m to 883m in San Pedro Channel and Santa Monica Basin

Kelvin Barwick was next to present his provisional species. He noted his new provisional taxa lacked the scholarship and completeness for inclusion in future SCAMIT listings. They were erected as place holders to expedite work and were presented at the meeting for comments and suggestions:

- *Glycera* sp LA1 Parker 1999 §, Family Glyceridae – Brent Haggin found some good specimens in the current survey and will take photos and update the voucher sheet
- *Amphinome* sp OC1 Barwick 2019, Family Amphinomidae – off the northeast corner of San Miguel Island; coarse sand and shell hash, 75m. Leslie Harris suggested comparing it to *Pareurythoe californica* (Johnson, 1897)
- *Laphania* sp, Family Terebellidae – off the northeast corner of San Miguel Island; coarse sand and shell hash, 75m. Leslie suggested making this *Laphania* sp OC1
- *Lumbrinerides* sp OC1 Barwick 2020, Family Lumbrineridae – off the northeast corner of San Miguel Island; coarse sand and shell hash, 75m
- *Macrochaeta* sp OC1 Barwick 2019, Family Acrocirridae – off the northeast corner of San Miguel Island; coarse sand and shell hash, 75m
- *Macrochaeta* sp OC2 Barwick 2019, Family Acrocirridae – off the northeast corner of San Miguel Island; coarse sand and shell hash, 75m
- *Microspio* sp OC1 Barwick 2019, Family Spionidae – off the northeast corner of San Miguel Island; coarse sand and shell hash, 75m
- *Sphaerosyllis* sp OC1 Barwick 2020, Family Syllidae – off the northeast corner of San Miguel Island; coarse sand and shell hash, 75m
- *Sphaerosyllis* sp SD2 Rowe 1996 § (or 1997), Family Syllidae – off Anacapa Island; coarse sand and shell hash, 80m
- *Plakosyllis* sp OC1 Barwick 2020, Family Syllidae – northeast of Anacapa Island; coarse sand and shell hash, 82m
- *Pseudexogone* sp, Family Pilargidae – 91m

Publication Date: October 2020

Adam Webb from CSD presented the following provisional species:

- *Dipolydora* sp SD1, Family Spionidae - 440m

After reviewing provisional species from the other agencies, attendees shared images of staining patterns for some of the following species:

- *Amage arieticornuta* Moore 1923, Family Ampharetidae
- *Ancistrosyllis* sp LH2 Harris 2020 §, Family Pilargidae
- *Ancistrosyllis* sp A Harris, Family Pilargidae
- *Anobothrus* sp DC1 Harris 2014, Family Ampharetidae – 71m off San Miguel Island, Bight '13
- *Aphelochaeta* sp HYP6, Family Cirratulidae. This species has been synonymized with *Aphelochaeta* sp LA1
- *Aphelochaeta tigrina* Blake 1996, Family Cirratulidae
- *Aphrodita* UI, juveniles, Family Aphroditidae
- *Aricidea (Acmira) catherinae*?, Family Paraonidae
- *Aricidea (Strelzovia)* sp LH1 Harris 2020 §, Family Paraonidae – Newport Canyon
- *Aricidea (Strelzovia) antennata* Annenkova 1934, Family Paraonidae – Newport Canyon
- *Aricidae (Strelzovia) monicae* Laubier 1967, Family Paraonidae – Newport Canyon
- *Aricidae (Acmira) horikoshi* Imajima 1973, Family Paraonidae – LA Harbor with pre - & post-setal neuropodial lobes
- *Bradabyssa pilosa* (Moore 1906), Family Flabelligeridae – Newport Canyon
- *Chaetozone hartmanae* Blake 1996, Family Cirratulidae
- *Dodecamastus mariaensis* Blake 2000, Family Capitellidae – Newport Canyon
- *Eclysippe trilobata* (Hartman 1969), Family Ampharetidae. Leslie stated that she had been finding 2 stain patterns, the normal shallow-water type from standard surveys, and another from Newport Canyon. The deep-water form will be getting provisional status in the future
- *Euchone* sp C Harris 2020 §, Family Sabellidae – 62m in Santa Monica Bay. Leslie noted this form is what we have been typically identifying in the past as *E. incolor* Hartman, based on the redescription in Banse (1970). However, Banse used animals from multiple regions. The local species is not the same as Hartman's species which is from deep water off New England
- *Euclymene* sp F Harris 2020, Family Maldanidae – Newport Canyon
- *Eulalia* sp 11 Harris 1997, Family Phyllodocidae – Cabrillo Beach, subtidal
- *Eulalia* sp 17 Harris 2017 §, Family Phyllodocidae – Cabrillo Beach, Inner Breakwall

- *Fabrisabella cf vasculosa*, Family Sabellidae – Newport Canyon
- *Harmothoe hirsuta* Johnson 1897, Family Polynoidae
- *Harmothoe* sp C Harris 2020 §, Family Polynoidae. Previously erroneously identified as *H. hirsuta*
- *Heteromastus* sp LH1 Harris 2020 §, Family Capitellidae
- *Leiochrides hemipodus* Hartman 1960, Family Capitellidae
- *Lumbrineriopsis* sp SD1, Family Lumbrineridae – 95m off Catalina, Bight '13
- *Ophelina* sp LH1 Harris 2020 §, Family Opheliidae – Newport Canyon
- *Paradialychone harrisae* Tovar-Hernández & Dean 2010, Family Sabellidae
- *Petaloproctus ornatus* Hartman 1969 & *Petaloproctus neoborealis* Hartman 1969, Family Maldanidae
- *Polycirrus* sp 1 Banse, Family Terebellidae – Santa Monica Bay
- *Prionospio dubia* Day 1961, Family Spionidae – 62m
- *Prionospio lobulata* Fauchald 1972, Family Spionidae – Newport Canyon. Leslie remarked that what we have been calling *Prionospio ehlersi* Fauvel 1928, is, actually, this species (*lobulata*). It is scheduled to be updated in the Ed. 13 SCAMIT List
- *Prionospio* sp J Harris 2020 §?, Family Spionidae. Leslie stated that this species has been called *Prionospio jubata* Blake 1996, in the past but *Prionospio* sp J has a distinct staining pattern and branchiae 1 & 4 are ~ = in length whereas *P. jubata* does not have a staining pattern and branchia 4 is longer than 1
- *Microspio*, Family Spionidae
- *Sabellides manriquei* (Salazar-Vallejo 1996), Family Ampharetidae
- *Spiophanes duplex* (Chamberlin 1919), Family Spionidae
- *Spiophanes fimbriata* Moore 1923, Family Spionidae
- *Spiophanes wigleyi* Pettibone 1962, Family Spionidae – 45m in Santa Monica Bay. Leslie found 2 specimens in one sample that had distinctly different stain patterns.
- *Streblosoma* sp B SCAMIT 1985 §, Family Terebellidae

APRIL 2020 – MEETING CANCELED DUE TO COVID 19

LITERATURE CITED

Banse, K. (1970). The Small Species of Euchone Malmgren (Sabellidae, Polychaeta). Proceedings of the Biological Society of Washington 83(35): 387-408.

Publication Date: October 2020

Please visit the SCAMIT Website at: www.scamit.org

SCAMIT OFFICERS

If you need any other information concerning SCAMIT please feel free to contact any of the officers at their e-mail addresses:

President	Kelvin Barwick	(714)593-7475	kbarwick@ocsd.com
Vice-President	Leslie Harris	(213)763-3234	lharris@nhm.org
Secretary	Megan Lilly	(619)758-2336	mlilly@sandiego.gov
Treasurer	Erin Oderlin	(310)648-5477	erin.oderlin@lacity.org

The SCAMIT newsletter is published every two months and is distributed freely to members in good standing. Membership is $20 for an electronic copy of the newsletter, available via the web site at www.scamit.org, and $35 to receive a printed copy via USPS. Institutional membership, which includes a mailed printed copy, is $65. All correspondences can be sent to the Secretary at the email address above or to:

SCAMIT
PO Box 50162
Long Beach, CA 90815